

### **"Working for Money."**

By DR. T. LEDYARD SMITH.

The idea of disassociating the money question from a dentist's daily work, may sound lofty-minded in certain addresses, and sentiment and aphorism constructed to bear us above the money plane may appear well in essays; but carried out seriously, in this age of get, never.

The question of dental fees often comes up in meetings, perhaps timidly hinted at, and is always promptly scorned by some member.

The sentiment expressed by an esteemed dentist to "spiritualize our existence and find joy in laboring for the good of humanity," reads like a well-meant sermon, but it is not practical. As the prime motive, it can have no strength in these times. Worked into a motto and hung on the wall of a dental office as a standard by which to live, it would only bring disaster and a dispossession warrant for non-payment of rent. If any one has those sentiments, they are acquired in later life, after the struggles with low fees, slow payments and bad bills and finally, in spite of drawbacks, the practice has grown large enough to show a profit.

The very nature of dentistry makes it absolutely necessary for the dentist to invent and plan, and execute the minutiae of his conceived product, which stands for his ideal, until completed. But for this, he would be a piece worker, a mechanic; instead of which, he is a dentist, making use of mechanics and all the arts. He is of necessity a useful, practical dentist.

The successful dentist has reached that point not solely because he is a clever dentist in all that his true work proper calls for; but, because

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he has guided his labors in the main on business principles; has used tact with his people, directed his affairs with finesse. He has become successful in proportion as he has combined all these elements, mixing his versatility with keen judgment and directing all with business acumen. In the end he will have some money, for which he has strained every effort. The reward may not be in just correspondence to his accomplishments; not as much as had he taken up law or politics. But he will have a fair competence and his success will be measured by his bank balance, which will grow in ratio as he uses every subtle effort to "get money."

Because we may set a definite price on a given service, it need not follow that the impetus of our best effort is checked, unless our estimate has been so low as to preclude executing for that price, a piece of work that should bring quadruple the figure. To do otherwise is to foolishly and without reason give our services away, and set a precedent with that patient which can only revert later to our loss and act as an unjust standard for some other dentist.

To work out theories and follow pet ideals having no direct bearing on our work in hand, are matters of mental recreation when not lessons in broader advancement. They are not the serious methods of our daily work; but more the fads of the dabbler. Such employment will bear fruit only in proportion as it may approach practical application and smack less of dilettanteism.

Dentistry is anything but that.

Dentistry, today, is a serious matter.

We are not a society of sentiment, nor is anyone of us a manager of an eleemosynary institution.

Our progress is so apparent, that it is frequently alluded to, but there is a reason and a direct cause. This is a progressive age; an age of growing wealth. Production is the natural sequence. The increase of gold has been the stimulating agent of progress. Dentistry is a field that by its poverty in earlier times offered, most naturally, many opportunities to feel the influence of the world's gold increase. Under this stimulant, nothing else could happen. Progress is the child of money.

The goal, money, is the direct means of making the progress of the world. The stupendous strides in every direction, have followed the promise of rich money returns. Look in any way you will, and this conclusion you must accept.

### **The Potency of Money.**

In taking account of these rapid strides, it is with a sense of reason to note the striking fact that never before has there been so much gold held as at the present time. During the first half of the nine-

teenth century the production of gold was \$800,000,000. Since 1890 the production of gold has reached the high figure of \$3,500,000,000. And it is a matter of common observation that since 1890, the world looks on with a sense of apathy at anything new, startling or colossal and accepts with a recognition of almost indifference, feats in science that would, at one time, have been scorned as utterly impossible. This volume of increase in a ratio of two hundred and thirty odd millions annually, makes big things a fact. It creates millions of small things, where otherwise they could not exist. It forces a wide-spread knowledge on children whether they attend school or not. It stimulates millions of minds with the promise of gain, to accomplish something, where formerly, lethargy existed for lack of stimulus. The jingle of gold makes usefully active, brain cells that under poverty would become atrophied. This active increase of gold has endowed the world with new vitality. It makes the billionaire a fact, whereas once, a millionaire was a wonder.

Money is the medium of exchange between our efforts and those of others, to acquire which, expressed in any manner whatever, would be in the main impossible without this medium. A sluggish circulation of this exchange medium is followed by general inactivity of human efforts. A dearth of money would mean cessation of labor. Make its circulation impossible and labor would stop; mental effort would cease.

This vitality of money is the moving spirit of every undertaking. It is the mainstay of nations; the life of commerce, the support of institutions of learning.

Money is the backbone of any idealism.

The one or two possible truths which give a basis for so-called Christian Science, would have been but a sand mound on which to build up its present body, but for its cleverly conceived scheme to extract money from the susceptible.

Like every other field of human activity, dentistry has felt the impetus that the promise of money lends. It has built colleges and filled them with students. It has created jealousies and has had enacted laws to protect its trusts—each State having its dental trust.

To the spirit of money, we as dentists are indebted for our indispensable adjunct—the manufacturer, without whose aid, I may ask, “where would we be?”

**Influence  
of Money on the  
Dentist.**

The best advice that can be given a graduating student would be, “Work for money,” and as a final one, no kinder lesson could be given him than to tell him something about the financial side of our profession.

My advice to every young dentist is, “Work for money.” Every

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dollar increase in your income will give you new enthusiasm, fresh incentive, and will pave your way smoothly for the growth, development and expression of higher ideals.

In following that advice he will carry it in a practical way to the public, to whom he will teach the first lesson in their appreciation of dental services. Anything less, is to merit their indifference to his art for which he has given four or more years of his final college career. In working for glory and idealism, per se, he will have scant praise and many outstanding accounts.

Any effort will mature with better satisfaction where there is the consciousness of a final just money recognition, than it will where that recognition is in doubt.

It is no check to any progress to first ask "What is there in it?" rather, it is the stimulant of reward, that excites brain activity toward accomplishment.

Reward is material acknowledgment of merit earned. Every human effort seeks acknowledgment. Generally, no praise equals in satisfaction the silent one of money equivalent to our effort.

No praise gives the same thrill as those letters you receive in your morning mail that commence by saying, "Enclosed please find my check for—" and which may or may not end, "and accept my thanks and appreciation, for what you have done." Could you have a thrill if, instead, the letter ran "I appreciate your services, but contest your account, as too high. Five dollars for a filling is exorbitant. I never gave over two at the most." Would that fan the flames of your ideals?

Professional enthusiasm and ideals will thrive better under a bank account, than under a roof where the rent is overdue.

The world may be full of rich examples of genius, worked out in poverty. But, the results are in spite of any poverty, and not because of it.

The worry wrinkles of money need, can only be a handicap of any advancement.

Every dentist today suffers more or less because of foolish ideas infused into the profession long ago, which made the mention of money matters distasteful to the alleged ethical sense of professional dentistry.

The public and its children have grown to view us in the light of this false attitude of idealizing our calling, "spiritualizing our existence and finding joy in laboring for the good of humanity." If such motives were ever worthy, were ever the real guidance of dentists, they are today not only impractical, but with no uncertainty whatever, harmful in a far-reaching way. Dentistry today is no less strictly a business,

**Dentistry  
a Business.**

because any one may choose to conduct it in a sloppy professional manner.

The importance of dentistry as a department affording relief to suffering humanity and offering expressed art to replace waste and decay, loses none of its dignity by being carried on with the motive and rules that govern and obtain in any other business.

A struggling dentist has a practice. His successful neighbor on a swell street has a clientele. The object in either case is identical. The patient either wants relief from misery or the means that will insure immunity from possible future pain, or wants dental embellishment.

The dentist is equipped to fulfil these needs, for a consideration. Not to give them. He is working for money. To be equipped, has cost him time, experience and much labor, and is costing him daily much thought and money.

**Work by the Hour  
Criticised.**

To part with any of his equipment with any other motive than to exchange it for money is the rankest kind of folly. For a ten-dollar-an-hour man to say that he never considers the money question with any case at hand is to make a false boast. He has already stated his price, in having it understood that his terms are ten dollars an hour. If there arises a haggle on those terms, he must then of necessity arrange for a price that will agree with what the patient can afford. In either case his price is settled before commencing work; and it borders more on falsity than folly for a man to make a statement to the effect that he is never governed by what there may be in a case. If he modifies his plan to suit his lower fee, he will then have arranged his work to meet the money in view.

The ten-dollar-an-hour man sets an arbitrary price, as if all services were alike in benefit and value; as if it were not a fact that where many services are simple, offering to the patient a value that is limited, calling on the operator for only a modicum of his talents, others are complex both in comprehensive study and execution, demanding the dentist's most strenuous achievements.

For what do we think, plan, invent, labor to cultivate our artistic sense that we may execute our highest ideals, if not for material reward? Really, for what?

With a set limit of so much per hour, the incentive toward superiority is lessened. It matters not, then, how we fill our time, since it can only be worth so much per hour, like a trade mechanic, as if we were selling our time only, with no recognition of the quality or real value of the service rendered. By the one price an hour system, we become a phase of the ten-cent store. "Everything on this counter ten cents."

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Before the ten-dollar-an-hour man could afford even that reputation, he saw to it that his bills received prompt attention, for he needed the money. But he lived and worked with the hope of acquiring some day, a practice large enough in numbers to warrant a weeding out; this weeding process to consist of gradually raising his fees and freezing out his undesirable patronage, viz., his poorer class; retaining or catering to those only to whom the question of what the cost will be of a filling, a bridge or other operation, would be a distasteful topic.

With such a practice, there is no need to discuss a choice of materials or procedure, because of a difference in price. The dentist has full swing to elaborate the work in any direction with the easy assurance that the bill will be cared for. And to still cater to that feeling of indifference about the money consideration, the bill will be held back for a month or two, or perhaps six, but the account will contain the interest for waiting.

In having for a practice such a class, the money question plays the same important role as it does where the dentist must consider whether the patient can afford to pay for a one or two hour gold filling, rather than a plastic that will require only a half hour or less.

The money question, with a carriage trade, is decided and settled in the mind of the dentist when the name of his patient is announced. With another patient, whose income may be anything less than twenty a week, and who is only one of millions of such in this country, an examination of the mouth is the first thing and a strict consideration of what can be done for a few dollars the next. Every dentist sizes up such a case and retires to his desk with his chart to figure on each individual requirement, and if he settles on a price, the chances will be even that in the end he will find himself underpaid, for, on the whole, dentists are conscientious.

The stand taken by any ten-dollar-an-hour man—meaning a man who strives to get that, or more—that it is unprofessional to let our work be governed by what there may be in it; that, rather we are to idealize our calling, and labor for the good of humanity, is an assumed stand that can receive no serious consideration whatever. It is a mistaken position and false in its very nature, since such a man is working for money harder and exercising his faculties more keenly in every way to acquire these larger fees, than he ever did during his first few years in dentistry.

Were we working solely for the good we may do, we would not exert our very utmost to induce a swell automobile trade to drive up to our door. We would confine our labor and time to the poorer class,

whose mouths by reason of their poverty, call for more extensive operations, as a rule, than those who visit their dentist twice a year.

Our very first consideration with a patient, is the money question. Not that we are to squeeze him, getting something and giving nothing; nor giving much and receiving little. It is pure folly to argue that a dentist must do his level best in any given case, regardless of what it will pay him. That policy is not tenable, nor is it applicable to any transaction in any line whatever. Applied to a dentist's work, it would be as disastrous as it would be unjust to himself and patient. Ours is just as much a case of buy and sell as if a commodity were changing hands. If any one doubts it, let him answer this question, "How much will you charge to fill a tooth?" or "How much will a bridge cost?" Ah! you want to see the case first? Of course, naturally, otherwise how can you give an intelligent answer. Therefore, your first mental function will embrace computation. The richer your patient, the less you need compute. The difference will be, that, where a high fee is assured from the start and without discussion, you will exert your every faculty to accomplish your highest æsthetic aims. The poorer your client, the more you will need to figure on how you can accomplish something serviceable for a low fee.

We all, every one of us, often try to accomplish in an hour or so, operations that we could with time unhampered with the exigencies of business, execute to a high finish, rounding out our æsthetic ideas. But dentistry is business and not a cult for the promotion of idealism, and it does not pay to spend hours daily in doing things for which we are to receive pay for only a fraction of that time. That we often do something extensive for which we neither receive nor expect pay, yes. The good thereof and our only excuse is that, of learning by experience to do something for which another time we expect to be properly compensated.

The incentive to accomplish and progress is the promise of reward. But for this we would still be using the old methods of years ago. The manufacturer's side of dentistry would not be in evidence. These showy, entertaining and very profitable dental fairs going on all over the country and that we all delight in visiting, would not exist. But, since they do, they represent simply a supply, and we as dentists are the demand. Every individual effort in these exhibits represented in any line or any display, is working toward the one common goal—money. But don't misjudge the value of that motive. The individual's aim and end may be this money, but the impetus of his efforts has gone further. The good works out wherever a dentist has used the manufacturer's product.

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With his aid and by our skill and knowledge we promote comfort to suffering humanity, and extend beneficence even to a generation yet unborn. But with no promise of material and adequate reward, would we do this? Could we? Never. Let us be honest. Do not expect rich mentalities where the stomach is starved. Do not look for high ideals from a mind that is chafed sore by worry. Do not go to the slums and look for spiritualization.

Progress, development, accomplishment and expressed idealism will always be found in the wake of gold.

The man who "works dentistry for all it is worth" will have done for humanity as much good and will have spread his genius more broadly than the man who works for glory and idealism only.

Any talk against working for money is the worst advice that can be spread in a dental meeting. The assumed delicacy in dental meetings and literature in handling the financial side of dentistry, is without one sensible excuse. Instead, a general benefit would ensue, were it treated often and generously and free from false ethics. Its discussion is as relevant as that of amalgam vs. gold, and will be as potent as ever, when something new will have been invented to displace both.

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### Root Filling with Gelatine Tubes.

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The query, do we, or do we not, fill the entire canal with cement or other materials, when we attempt to set a pin crown or bridge, is a proposition that has but recently been touched upon; because of the fact that the roots and surrounding parts are opaque, impervious to light, our sight is barred from the "secrets of the inner chamber." We have been acting upon the supposition that it has been well done, when a little investigation might prove to us that we have fallen far short of accomplishing what we expected.

Let us consider how we have been setting our crowns. A large majority of us have been doing it in the following manner: We mix the cement, or other material, and with a small canal instrument, or broach, attempt to introduce it into the canal, little by little; after repeated deposits we are led to believe that the canal must be about full, but to make sure we place a portion upon the pin; we must hasten for the cement will soon harden; we place the pin in the canal and press hard to place; we feel assured that the canal is well filled, for has it not run over?

#### **The Old Method of Setting Crowns.**



A large excess has been forced out about the gums. If by chance we remove the pressure on the crown, it might come out a little—that is, the pin may come out of the canal, so we renew the pressure on the crown and hold it in place until the cement hardens enough to hold it. Why does the crown and pin come out? Let us look inside the root and see, let us find, if possible, the condition of the deposited material in the canal, and if there is a defect find the cause.

In attempting to fill the canal, through haste, carelessness or inability, we close the opening of the canal, and the cement does not go to the end of the pin. Why? Because it is against the law. The law in this case says: "Two things cannot occupy the same space at the same time." Air fills the space, and it will not go out. Why? Because the door was closed and it could not. The placing of the cement on the pin, instead of helping fill the canal, only made it more difficult; it closed the opening, as a cork stops a bottle. If any air is confined, a like portion of cement must be displaced, with a little allowance made for the compression; the air therefore displaces the cement and forces it toward the opening; it is ejected upon the gums, and little is left about the pin in the root where it is most needed.

We have been trying to look inside the root. This is not literally true, yet we can prove by a number of methods that the above statements are true; that the entire root is not filled and cannot be filled with the assurance that it is done perfectly.

Let us consider some of the ways by which we can detect some of the shortcomings in our crowning system. The most convincing proof of this defect is the one just given, the crown pin being forced out of the canal by air under pressure. We have all had it happen to us, or would, if we removed the pressure and gave the crown a chance to come out, but we do not; we hold it tight in place until the cement hardens enough to keep it in place, yet the air is there just the same; a vacant place is left; it is hidden from our view and that of our patient, so we let it go and trust to Providence and half-and-half (half air and half cement) to hold it in place. Are we doing right to continue this practice?

#### **Experimental Tests of Root Fillings**

Another way is to take a natural root that has been extracted, remove the crown, enlarge the canal to receive the pin of the crown. Be sure to seal the small end of the root, by filling, or dip the external portion of the root in melted wax, so as to seal all openings, the same as though it were in the mouth. Then set the crown the way you have been accustomed to do. After it has hardened, break or split the root, or grind it away, so that it will expose the canal and its contents, and note the result. Or take a glass tube formed like the root of an

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Fig. 1.

anterior tooth, with an opening for the pin, having the small end sealed (Figure 1); in short, a transparent root, and a crown to be set in it. You can use cement if you wish, but a better material would be something that would work like cement, but not harden. As such substance I would recommend vaseline. With this material set the crown, as you have been in the habit of doing; cover the sides of the glass tube with the thumb and forefinger, so the canal of the root will be hidden from view, the same as in the mouth. This should be done to insure a fair trial. After you have used as much time as would be required to set a crown in the mouth, or long enough for the cement to begin to harden, if you were using it in a real case, take the crown, place the point of the pin into the opening in the glass root, remove your fingers and watch the air displace the material from the canal as the pin goes in. If you are not satisfied, try it again. You will find it a task to get a perfect setting without air about the pin (Figure 2).



Fig. 2.

Another way of testing may be with X-ray pictures. It is a field the author has not experimented in, so I will not give you a detailed description, but feel confident that if we should see through some of the jaws, gums and roots we would find many "an aching void," where we expected a perfect setting.

With the advent of the cement  
**Cement Syringe.** syringe (Figure 3) the shortcomings of  
the old methods have been overcome,

and we are able with much less time and trouble to set our crowns, with the assurance that they are in perfect setting. The principle upon which it works is very simple. With a tube small yet long enough to reach the bottom of all enlarged canals, a receptacle for holding, and a means of ejecting the material, we begin at the bottom and build up from there. The cement forces the air out, not the air the cement. Would you attempt

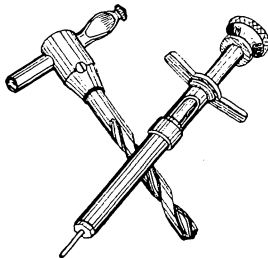


Fig. 3.

to build an arch by placing the keystone first? Can you fill a jug without letting the air out? Can you expect to fill the entire root when you close the opening first? The cement syringe has done a good work. It has been the means of bringing to light some of the "secrets of the inner chamber"; it has given the profession a positive and perfect way of setting their crowns; it has paved the way for something

very much simpler. Many will still use it, but the multitude now take off their hats to the simple little device.

**The  
Jiffy Cement Tube.**

It is simply a transparent, collapsible tube made of gelatine, about an inch in length, with a large opening or receiving chamber at one end and a small elongated discharging tube at the other. Place the cement in the large end, squeeze the tube together with the fingers; it will eject the material at the small end. When you are through with it, throw it away; use a fresh one each time; they are inexpensive; there is nothing to clean or take care of; you "squeeze it and it will do the rest."

They are made collapsible, as that is the simplest and most efficient way of ejecting the material, which can be deposited about an eighth of an inch beyond the end of the point. They are made transparent, in order that you may see what you are doing. When filling and emptying the device see where the material is in the tube, and know that no air bubbles exist, and note the condition the material is in when being introduced. Gelatine is an ideal substance for their construction, not only for the advantages stated, but because it has a smooth, non-absorbing surface it will not take from the liquid portion of the mixture, as some materials might; the acids of the cement, or the chloroform in the chloro-percha, will not affect the gelatine in the least; neither will many of the liquids or medicines commonly used in dental practice, affect it, except water, or anything composed largely of water, and even they can be used in the tubes, if care is taken not to prolong time in their use. If you wish to make them waterproof, dip them in thin shellac, or collodion, and let them dry, then they will not be affected by water.



Fig. 4.

The advantages of the tubes over the syringe are many. Their cheapness enables you to use once and discard, thereby doing away with the necessity of cleaning after use. This will be hailed with pleasure by those that had been using the syringe and were careless in withdrawing the piston and cleaning it in time. Then they are perfectly sanitary; the tube being used in one mouth alone, there can be no danger of infection. The tube can be used in any part of the mouth, in any position you would be required to use it, in treating or operating upon the posterior as well as the anterior teeth. Liquids and medicines can be introduced into cavities, root canals, fistulas, openings, etc., as I will explain later.

It is the prime object of this paper to give to those that are using this little device a better understanding of the manner of manipulating it and to present some new uses to which it can be put, which will aid us in operating in the oral cavity, as well as in the mechanical laboratory.

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**Setting Crowns.** When setting crowns with cement, mix the material to the consistency of thick cream, or soft vaseline, varying with the kind of cement used; however, it can be used thicker than by the old method, as time is saved in introducing it into the canal. Place the mixture to be used into the large end of the tube, from off the point of a small spatula, working it well down toward the small end, by squeezing the tube together; then take the tube with a long and stronger hold (Figure 5); have the end at the ball of the thumb and forefinger, press the end together and keep it tight, make a rolling motion with the fingers, as if the compressed tube was passing between a set of rollers. By this method you will not permit the material to pass out backward upon the fingers, thereby soiling them and wasting the material.



Fig. 5.

A better way still to keep the cement from escaping back upon the fingers is to place a small piece of cotton or cottonoid over the large end when you squeeze it together, and none will escape.

The small point of the tube is as long as any pin you would be required to set. It will deposit the material about one-eighth of an inch farther than the point will reach. Place the point in the canal as far as it will go; begin the pressing or rolling motion with the fingers; keep this up until you see the material coming out of the canal beside the tube, and continue to press as you withdraw the point out of the canal; by so doing you will not be liable to take any of the filling with the tube as you withdraw it.

It is not necessary to place any cement upon the pin. If it is a crown with a band or deep groove, it would be well to fill them so as to avoid air bubbles. When the root is filled, place the pin in the canal and press hard to place. You do not need to hold it to keep it from coming out, as you would in the old method, as no air is there to displace it; only see that the crown is not accidentally displaced. That is all there is to it; you have no instruments to clean or take care of, and you can rest assured that the crown has a perfect setting.

**Testing the Work.** If you wish to see how effectually and perfectly this system will do its work, I would advise you use the tests given with the glass tubes and natural roots. You may think if you tried the test with the glass tube, by the old method, that the tube was well filled, but try it with

the gelatine tube and note the difference in the appearance of the material through the glass (Figure 6). Or try the test with the natural root, break it open and inspect the results. A few of these trials, if properly made, will convince the most skeptical of the shortcomings of the old and the perfect results of the new method.

**Another Way  
of Using Them.**



Fig. 7.

There may be some that would prefer a cap to place over the large end of the tube. In that case go to any drug store and procure some No. 3 gelatine capsules; take the cover and use it as a cap for the tube, which will nicely fit it. Place the material in as described, pressing it well down toward the small end; then place the cap on the large end. But in the manner of squeezing it you must proceed differently; in place of pinching the end together, you can press anywhere you wish, and the compression of the air will force the material out. You could not press the end together in this case, as there would be four thicknesses of gelatine to squeeze; all you need do is to compress its sides and it will work just as well.

**To Use Liquids  
or Medicines.**

If you wish to introduce liquids or medicines into cavities, root canals, fistulous openings, pyorrhea pockets, etc., you can find no better method than to use it as a dropper. This is done by using the cap with the tube, described before. When using a liquid, place it in the cap; then take the tube, large end down, and place it in the cap containing the liquid. After the cap is on, it can be turned right side up, and you have an ideal dropper; the contents will not come out, except as you wish it by compressing the sides of the tube. You have no glass tube with a rubber bulb, as in the common dropper, but a short compressible dropper that will do the work, and rest assured it is perfectly antiseptic, as you use it in one case then throw away.



Fig. 8.

Chloro-percha, oxpara, mummifying paste, or any similar preparation can be used and manipulated in the same manner. It will also be of use in setting pins in Davis crowns or placing detachable backings in crown and bridge work.

**To Refill  
Shell Crowns.**

Very often we find the cement has disintegrated beneath a shell crown, especially at the cervical borders. It may be slight and we may not wish to remove the crown, or it may be the support of a

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bridge, and it would be difficult to remove it. In any such case the vacancy can easily be filled with the tube. Or perhaps there has been a hole worn through a shell crown, upon the occluding surface, and the cement has disintegrated, or the tooth has decayed under the crown. Make a hole through the crown, clean, dry and refill with the point of the tube inserted through the opening. By this means sometimes you can remedy the defect without removing the entire bridge.

### **Perforated Roots and Capping.**

In case of a perforated root, which might occur through carelessness, or from crooked and abnormal roots, we suddenly find the periodontal membrane has been injured. In attempting to place cement over the parts, poking it with an instrument would start a hemorrhage, and doubtless cause trouble. Or in case of pulp capping, you wish to place the material just where you want it, without danger of wounding the membrane or pulp, with an attempt to cover it, or cause undue pressure upon the parts. In any such case you will find the tube is an ideal device for placing the materials just where you desire them, without injury to the surrounding parts.

### **Filling Air Bubbles in Casts and Flasks.**

Very often deep air bubbles will form in casts of plaster of paris, or in flasking a case, generally between the teeth, or section joints, will be found a deep bubble that is difficult to fill, owing to the fact that the plaster will absorb the water from the fresh plaster, before it will reach and fill the bottom of the defect. In a case of this kind take a tube, fill it with soft plaster and you can quickly and effectually fill all such cavities, only bear in mind when you use soft plaster it is composed partly of water, so do not procrastinate.

### **To Keep the Tubes in a Proper Condition.**

The tubes can be kept in a proper condition, and keep indefinitely if the nature of gelatine is understood. Gelatine is composed partly of water, and it is readily affected by it. You should keep the tubes in a place not too dry nor too damp. It is better to keep them closed in the box in which they come. Should they become soft, it shows they are too damp. Should they become brittle and break when squeezed together, it means that they have dried out too much. To make them right again, place a damp cloth about the box a short time, or take a small piece of blotting paper, dampen it and place it in the box. Care should be taken not to let any water come in contact with the tubes.

### **To Make Longer, or Curved Points.**

Should you wish a longer, or curved point, simply cut off the end of another tube about where it begins to enlarge, dampen the parts and telescope or stick the extra point on to the end of the other, then

permit it to dry. By this means you can have as long a point as you wish, or change the shape as you see fit.

With this positive system there are but few chances for a crown or bridge to come off, if properly constructed, and good anchorage is obtained. There is less danger of an unbanded root splitting by using a method that will fill the entire canal than one that is only partly filled, for we know a solid will not split as easily as a hollow tube, as a root would be if not filled. A long-pin crown with a portion set in air, is not as good as a short pin with a perfect setting. But a long pin with a perfect setting is better still. Then the saving of time by using this method can only be measured by what you consider your time to be worth.

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## A New Obtunding Method.

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By CRITTENDEN VAN WYCK, D.D., San Francisco, Cal.

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There is no doubt that the dental profession needs a universal obtundent. A glance at our literature shows this to be true. With nearly every issue of our journals some new item can be found on this subject. Given a typical case, how many dentists would suggest the same method of preparing the cavity painlessly?

Is it not a fact that all of our present methods of obtunding sensitive dentine either require so much extra time or a second sitting, taking up still further time, that the profession, generally speaking, use nothing at all?

We are perfectly familiar with the wonderful advances achieved in dentistry along the lines of newer and better filling materials and methods for their use, but the same old dread of the dentist's chair still remains in the mind of the public. And well it may, because until we stop drilling into sensitive dentine, until we stop causing that dreadful pain, the terrors of a dental ordeal will continue to keep thousands of people from having necessary work performed.

Regarding sensitive dentine Burchard says:

**Cause of Sensitiveness  
of Dentine.**

"Occupying each dentinal tubule and following its branches are processes from the peripheral cells, the odontoblasts of the pulp. The most striking feature noted in connection with them is their variable sensitivity. When dentine denuded of enamel is brought in contact with acids, and frequently with sweet substances, a sensitiveness is exhibited which varies in degree with individuals. This same result obtains when pressure is brought to bear upon such surfaces, or when applications of heat or cold are made

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to them. These fibrillæ or processes have the power of receiving and transmitting sensation equivalent to, if not identical with, that possessed by nerve tissue.

### **Methods of Creating Sensitive Dentine.**

Dr. F. C. Collins in the *Dental Register* covers the ground generally, when he says: "Among the simpler methods used may be mentioned the application and the abstraction of heat, the former by projecting a current of hot air on the exposed surface, the latter by dropping some highly volatile fluid, such as alcohol, chloroform, or ether, into the cavity and allowing evaporation to take place. The depth to which either method obtunds is necessarily very limited and would require frequent repetitions to be of much service. There are certain drugs whose properties give them more or less obtunding power. Among these are the escharotics, such as carbolic acid, chromic acid, trichloroacetic acid, and silver nitrate. Their action on the exposed ends of the dentinal tubules materially lessens the sensitiveness of the dentine to pain. A group of drugs possessing astringent properties have also been used. The most common are zinc chlorid, tannic acid, and terchlorid of gold. Any one of these, combined with alcohol and placed in a cavity by means of a pledget of cotton some time previous to excavating, renders the operation much less painful. Some of the essential oils, such as oil of cloves and oil of cajuput, act as obtundents. They have not much immediate effect, but placed in the cavity for some time before operating they produce markedly good results. Drugs possessing anesthetic properties are among the most useful for obtunding purposes; aconite, atropin, camphor, chloral, and cocaine are the principal of these. They have most effect where the dentine is not very compact, and the effect may be increased by means of pressure in applying them."

Dr. Viggo Andresen, of Copenhagen, recommends the use of hydrogen dioxid for sensitive dentine. In an able article he points out its usefulness in cervical cavities especially.

Dr. L. Dalban, of Paris, France, reports his successful use of ethyl chlorid, as applicable to certain cases of hypersensitiveness of the dentine. His method consists of introducing into the cavity a pellet of cotton saturated with ethyl chlorid, and directing against the cotton while in place a spray of the same agent, for about twenty seconds. The introduction of the pellet is followed by severe pain, which lasts for about five seconds. The cavity may now be excavated for one minute without causing any pain.

Dr. F. Aguilar is quoted as saying: "The long list of physical and pharmaceutical remedies recommended for dental hyperesthesia we all know frequently fail in acute cases. Refrigeration with ethyl chlorid is



the most active remedy for hypersensitive dentine, but it has the great disadvantage of its volatility and the painfulness of its application, insupportable by some patients. Hot carbolic acid, recommended by Dr. Jenkins, although very efficacious in mild cases, is not sufficient in acute hyperesthesia. It is then that nervocidin will surprise us by its effects, for the application of this drug will, without destroying the vitality of the pulp, suppress in a few hours all sensitiveness during excavating.

In the December issue of *L'Odontologie*, of Paris, M. Audy has a long and comprehensive article entitled "Erythrophlein Chlorid in the Treatment of Sensitive Dentine." Were it not for the fact that he requires this remedy to be sealed in the cavity over night, and the drilling to be done at a second sitting, I should say that we need not look any further for a remedy of this nature. However, the moment we read glowing descriptions of agencies which will positively obtund sensitive dentine and then discover that it takes two sittings for their use, we are apt to dismiss the matter and give it no further thought.

I am satisfied that any remedy which requires two sittings to obtund sensitive dentine will never become popular.

There are three new methods now known which only require one sitting, the cocaine injection method and the extreme of heat and cold. Cocaine forced into the dentine with great pressure is giving splendid success in cavities easy of access. Heat as applied by a jet of hot water at 130° F. and advocated by Dr. A. F. Merriman, Jr., is also a successful method. Cold, as applied by the vapors of chloroform, ether, alcohol and menthol or an ether spray, are successful methods, requiring but one sitting.

What are considered to be the requirements of a perfect obtunder?

What do we all want in this connection? Every supply house in the United States has something to sell, advertised to obtund sensitive dentine. In my opinion the ideal obtundent must possess four qualities: First, it must perfectly obtund any and all cases, from mild to those extremely hypersensitive; second, it must be readily applicable to any and all classes of cavities, mesial or distal, buccal, lingual, cervical, labial or occlusal. Then, as every moment spent in the method of its use takes it from the ideal, therefore it should obtund immediately and permit filling at the same sitting. Fourth, there must be no ill effects from its use at the time, nor danger to the subsequent life of the pulp.

These are four stern requirements. Of all the

<p><b>The Author's Method.</b></p>	<p>methods and remedies that I know of the ether spray, as applied by the Van Wyck obtunder, comes nearest to fulfilling them. That it perfectly obtunds has been</p>
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proven by the testimony of every dentist who has ever tried the method.

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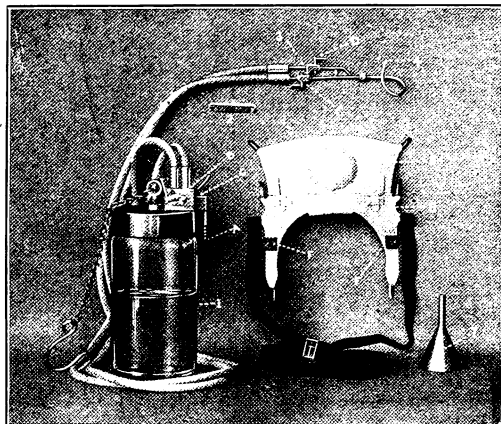
A flexible nozzle fulfills condition two, as it can readily be bent to throw the spray upon any tooth or any cavity. As it takes but an average of five minutes' extra time to reduce the temperature, and as it allows one to use his right angle at any moment and to fill the cavity at one sitting, it approaches nearer to fulfilling condition three than any device now upon the market.

If during three years' successful use by scores of dentists no after-effects have been reported directly traceable to this method, then condition four is fulfilled. That the extreme cold might cause the subsequent death of the pulp has been proven an unnecessary fear by the three years successful use of this method.

I have frequently taken my thermometer to an ice cream stand to test the temperatures. Between  $32^{\circ}$  and  $36^{\circ}$  F. ice cream is placed before the public and water ices at  $26^{\circ}$ . By inserting the thermometer in my own mouth and then taking ice cream, I have been able to register  $40^{\circ}$ . Hot drinks are served at  $135^{\circ}$ . As the teeth can readily stand these great differences in temperature it seems but reasonable that there would be no evil effects from an ether spray. I am glad to report that all the dentists who use the method have the same opinion, backed up by several years' experience. However, there is this to be said, that it takes some time to learn just how to manage the spray. Your first trial may not be successful. You may not have the spray turned on enough, and therefore not cold enough to prevent pain. Again, too much spray is just as bad as too little, because the liquid runs over and prevents nice work. One must learn by two or three trials just how strong a spray is required, because it varies with each person, but the method is really so simple that any dentist can use it. Having plenty of fresh air in the room while using the spray and by putting a few drops of a strong perfume in the ether glass jar there is never any trouble about the odor.

A glass jar (Fig. 1) containing the ether is suspended from the head-rest of the chair. Compressed air at twenty pounds is led into the jar, forcing the ether out through a small rubber tubing, which ends in a metallic tubing (Fig. 3), by which the spray is regulated. The compressed air is also led to this metallic piece. A flexible nozzle (Fig. 4) is arranged to attach to the metallic piece by means of a screw-cap, and this nozzle can be bent to direct the spray upon any tooth whatever. Fig. 5 shows a removable vapor shield, which, in combination with Fig. 6, forms the rubber dam spreaders. A funnel for filling the ether jar is shown at Fig. 7. The metallic spray regulator (Fig. 3) is designed to fit into the spring clasps at "F" on the dam spreaders. A, B, C, D and E show the air and ether

valves. The temperature of the tooth is reduced gradually, and to avoid any shock of coldness a piece of cotton is first placed over the tooth to be operated upon. By spraying intermittently for a short time the temperature is soon lowered, so that no sensation of cold is felt at all. This point



reached, drilling can be done painlessly, the spray running all the time.

As several cavities may be drilled out at one sitting this method is often a great time-saver, and as a new obtunder, and one that can always be relied upon to do the work, to give relief for sensitive dentine and to lessen the cares of the dentist himself, I know of nothing better.

### **A Correction.**

By JULES J. SARRAZIN, D.D.S., New Orleans, La.

Figures 5 and 6 on page 670 of the September ITEMS OF INTEREST issue do not either exactly reflect the text printed alongside nor the intended meaning of my article on "Porcelain Jacket Crowns." Fundamental ideas are that all porcelain jackets offer weakness of porcelain to the impact of lower incisal edges; that porcelain translucency precludes nitrate of silver cauterization of stumps, and that all porcelain jackets' friability does not allow gutta-percha mounting for future ease of repair. The platinum cap and a well-defined labio-gingival shoulder, mentioned in

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my article, will overcome all the above objections, provided that a facing be used, and that its pins be soldered to the incisal extremity of the caps.

The copper tube, Fig. 3, page 670, September issue, should be of the same size as the cervix of the central incisor.

Fig. 5 should show a well-defined labio-gingival shoulder extending nearly one-fortieth inch below the gum's free margin, the platinum cap doing likewise all around.

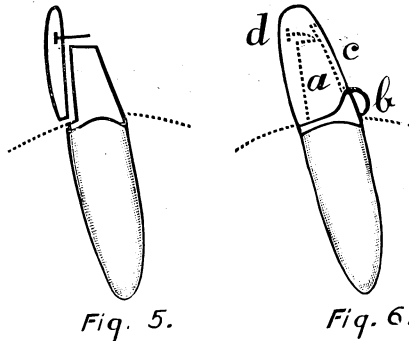


Fig. 6 should show a square facing of porcelain labio-gingivally, but no porcelain at all lingually, except above the platinum cap, so that no thin porcelain be exposed to the lower incisal edges. At C, a reinforcing strip of platinum should be shown, extending nearly half-way between the incisal extremities of the platinum cap and the porcelain. Its mission is both to offer strong material to the lower incisal edges and to offer a square packing corner to porcelain added to the facing, just where resistance is the most needed. The platinum cap is covered with added porcelain approxi- mally to correct knuckling, but the platinum cap is not covered by it lingually, for reasons above explained. The basal ridge is reproduced by a half-round irridio-platinum wire, also gold platinum soldered directly on the platinum cap, near its linguo-gingival extremity, and, of course, without any intervening porcelain (as was originally illustrated at *b*, Fig. 6), since there should be no porcelain at all over the platinum cap lingually. The basal ridge is thus reproduced, because it is frequently a functional necessity—because extension of the same wire offers dummy support when needed, and, in some few favorable cases, a sufficient cantilever brace. Of course, all metal work precedes porcelain. A labio-gingival section of the crown will not show conventional fossæ depression, since

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the platinum cap will lingually lay flat and snug on to the stump, but porcelain gives correct knuckling, and half-round irridio-platinum wire forms the basal ridge. The only reasonable objection would be the contact of outwardly exposed metal to the stump, if it had not been cauterized with silver nitrate, gutta-percha mounted, and if the absence of thermal sensation did not corroborate safety in clinical observation.





## A Reply to Dr. Ottolengui's Criticism.

By CALVIN S. CASE, D.D.S., M.D., Chicago.

It does not require deep knowledge of a subject for any one who possesses a certain ability in the use of language to write what purports to be, to the reader, an adverse criticism of considerable profoundness upon any paper relative to mooted questions, however fair its premises, undeniable its arguments, and free from opportunities of misunderstanding its propositions and conclusions.

In an editorial criticism of the paper which I published in the July number of *ITEMS OF INTEREST*, entitled "Principles of Occlusion and Dento-Facial Relations," the writer asserts, that I "seem to think" a number of things which *my words in no sense imply*, nor does he give any reason based upon my arguments why I am so foolish.

But this is nothing compared to the very questionable propriety of calling me to account, for what he implies is a false or unfair statement of the teachings of the "new school," when he knows that his readers have but to turn back and read over my quotation from the words of the *leader* of that teaching. And the most peculiar part of this feature of his argument is, he follows it with a lengthy dissertation upon this subject which purports to be his own ideas—opposed to mine—which is exactly along the trend of thought which I endeavored to enforce.

He is quite horrified that any one should imply that the members of the "new school" of orthodontia are so *grossly ignorant* as to practice, or attempt the practice, of an equally reciprocal disto-mesial movement

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of the upper and lower teeth with the intermaxillary force. And he calls this the pith of my argument and asks me to show my "authority" for the statement. Then he proceeds to show how the statement is untrue because such a movement is impossible with an unrestricted action of the intermaxillary force, which I myself pointed out, and which I am led to infer is the only action of its application which he at present recognizes.

But that is *not* the pith of the statement, as any one may see. The pith of the statement is, that in the *teachings* of the "new school" relative to mesio-distal malocclusions, they do not seem to recognize the fact that the malrelation may be wholly due to a malposition of one set alone; for instance, when the upper teeth are protruded and the buccal teeth in mesial malinterdigitation, that the lower teeth may be in perfect dento-facial relations, and at times even protruded. "But in their estimation, when the teeth of one jaw are protruded, the teeth of the other jaw are retruded and vice versa." And I state why this appears to be their belief and teaching—viz., "else why is it they advise the invariable practice of an equally reciprocal movement of the upper and lower teeth in all cases of mesio-distal malocclusion of the buccal teeth."

Now let us see if I had any "authority" for that "broad statement," which he says imputes such *gross ignorance* to those whom I criticise. Mind you, I am not criticising the *men* of the so-called "new school of orthodontia," many of whom are my warmest friends, and who, I know, are endeavoring to practice—notwithstanding the teaching—according to the higher principles of dento-facial harmony; but I am criticising the *published teachings*—all that we have in the world to tell us what are the so-called "basic principles"—of this new school teaching. Nor am I quoting, as I might by the yard, from the many young and inexperienced parrot-like voicings of that teaching; but instead, I have chosen my texts from the published works of the *leaders* of that school—from the men who *organized* the system, and who today constitute its head and front.

In a paper presented before the New York Institute of Stomatology, October 7, 1902, entitled "Some Basic Principles of Orthodontia," by Edward H. Angle, M.D., D.D.S., St. Louis, Mo., and published in the *International Dental Journal*, October, 1903, will be found my "authority" for the said "broad statement," which the editor of *ITEMS OF INTEREST* forces me to quote, viz.:

"The two models now shown upon the screen (Fig. 19) illustrate well the main principles of all cases you will ever find that belong to this great class, which I have named Class II. \* \* \*

"In the treatment of these cases I believe I can again prove to you that my theory is correct, that extraction is wrong, that the full comple-

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ment of teeth is necessary to the best results, and that each tooth shall be made to assume its correct relation with its fellows. In other words, if the molars and premolars of the upper dental arch be moved distally one-half the width of a cusp of a molar or premolar and the molars and premolars of the lower arch be tipped forward in their alveoli to the same extent, or one-half the width of a cusp of a molar or premolar, there will then be normal mesio-distal relations of these teeth, and if the arches in the region of the incisors be put in true at the same time, there will be harmony in their relations and the best effect will have been produced upon the facial lines. In other words, we will have established normal occlusion with all its possible benefits.

"This plan of treatment I have been practicing now but three years, and so pleased am I with it in the large number of cases that I have so treated that I no longer practice or believe in the plans that I formerly advocated; or that of gaining harmony in the sizes of the arches by the sacrifice of the two first premolars in the upper arch and retracting the cuspids and incisors to close the spaces; or by the plan known as 'jumping the bite,' first advocated by my friend, Dr. Kingsley, consisting of first placing the teeth of each arch in correct alignment and then compelling closure of the mandible forward the width of the premolar tooth on each side, so that all of the teeth were in normal occlusion. That both of these plans may and have been more or less successfully followed there can be no doubt, but I believe them to be far more tedious, more difficult of accomplishment, and more uncertain as to satisfactory results than the plan I now follow."

Will the editor of ITEMS OF INTEREST please note that the above teaching refers to Dr. Angle's entire Class II. (or that character of malocclusion in which the upper buccal teeth are in mesial malocclusion in relation to the lower, and which must necessarily range, in dento-facial relations, from protrusions of the upper with the lower normal, to retrusions of the lower with the upper normal), and *that it distinctly and mathematically "advises the invariable practice of an equally reciprocal movement of the upper and lower teeth."* It goes further and tells us, that with such a movement, "the best effect will have been produced upon the facial lines."

If my friend, the editor, or any other of the more enlightened members of the "new school" now wishes to assert that such teaching "imputes gross ignorance," it resolves itself into a family quarrel, for which, as I have shown, I am not responsible. I must say, however, that such an opinion is quite in accord with my own views.

In my article I endeavor to show that were such a movement accomplished, in many of the most common cases, the esthetic dento-facial



outlines of the upper would be only one-half corrected, while the lower would be abnormally protruded.

I further pointed out, that in the ordinary cases of upper protrusions, an equally reciprocal movement of the upper and lower teeth was probably never accomplished with the intermaxillary elastics, applied in the manner that is advised, with the set of appliances on the market. But that which undoubtedly does occur is a far greater protruding movement of the lower teeth (with a labial tipping of the incisors) than a retruding movement of the upper teeth. I am pleased to see that the editor of *ITEMS OF INTEREST* agrees with me in this. But does he realize what this means?—viz., that upper protrusions per se *will not be one-half corrected* when the teeth are brought in this way to a normal occlusion, and that the full result must inevitably be a *bimaxillary protrusion*, and possibly of a decided character?

He falls into the error of attempting to show that an equally reciprocal movement of the upper and lower teeth would be impossible. Yes, it would be impossible under ordinary conditions, with an unrestricted action of the intermaxillary force upon one set, or unaccelerated action upon the other. He says: "There probably never was a case of exactly equal reciprocal movement between two jaws produced by simple intermaxillary force, unrestrained, and therefore it would be folly to advocate such an undertaking. By a wild flight of the mind one may imagine two jaws moved with equal ease mesially, or with equal ease distally. But it is not conceivable that one of these jaws could be moved, let us say a quarter of an inch distally with the same force that would be required to move it the same distance mesially. (By 'jaws' in this argument is meant the teeth and their processes.) It therefore follows theoretically that in all mesio-distal reciprocal movement of two sets of teeth simultaneously, the set moved mesially travels a greater distance than the set moved distally, dating such measurement from that period in the work when all teeth are in approximal contact."

It certainly would be a wild flight of the mind to imagine that two bodies of *unequal* inertia and resistance could be moved toward each other with *equal* velocity with the same force and attachments. But that states only the one condition—i. e., that the bodies in question be ungoverned in their movement by the peculiar construction of the apparatus by which the force is applied.

I am therefore glad to have this opportunity to again assert a very important principle in the application of intermaxillary force—a principle which I first mentioned in a paper presented as early as February 2, 1893, and which recently, in the more advanced methods of its appli-

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cation, I have in numerous places endeavored to specifically enforce, though not one-half of the story has been told.

I am pleased to state for the benefit of those who see in the application of the intermaxillary force only the limited possibilities of its action propounded by the editor of ITEMS OF INTEREST, that every dentist of ingenuity can so arrange the construction of the regulating apparatus to produce (within reasonable possibilities of its action) exactly the distomesial movement for the correction of malocclusion which is demanded by the dento-facial inharmony.

If an equally reciprocal movement is demanded *it can be produced*. Again, if you wish to employ the intermaxillary force for a retrusion of the upper teeth (which does not involve an injudicious distal movement of buccal teeth) and at the same time produces little or *no* protrusion of the lower teeth, that is equally possible.

The time is not far distant, I trust, when the possibilities of all anchorage forces—dental, intermaxillary and occipital—for the regulation of teeth, will be far better understood, and the teaching and methods of their wholesale misuse be reduced, if not wholly eliminated.

When this branch of the dental profession, who style themselves the “new school of orthodontia,” is able to throw off the false teaching—which really constitutes all that is new in that school—then and not till then will they rise to the higher plane of dento-facial orthopedic art, in which the first requisite—in the homely phrase of an old medical professor—is “to know what’s the matter,” to be able to recognize in each individual case the character of the variation from the normal and then proceed to apply such treatment as will in their hands most effectually result in a good masticating and retaining occlusion by a movement of the teeth according to the demands of the dento-facial inharmony. This will not consist in any *one* man’s system, method or appliances, but it must necessarily consist in the application of the every-day common-sense principles, developed according to the capabilities of the individual, toward the esthetic, and also in the application of force in accord with the simple and well-established laws of mechanics restricted and guided by physiologic and artistic demands.

In the editorial in the August ITEMS OF INTEREST, relative to the Symposium upon the advisability of extracting published in that number, the editor says: “In some respects the papers and their discussions, with their illustrations, serve as a reply to some points raised by Dr. Case.”

Will the editor kindly point out for the benefit of the readers of his journal the particular parts of the matter to which he refers? At present I am unable to see any connection whatever, in the sense of a refuting reply to any point which I raised.



## The Problem of Extraction.

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By GARRETT NEWKIRK, D.D.S., Pasadena, Cal.

I feel like congratulating you on the orthodontia number of the August ITEMS OF INTEREST. The thorough discussion of the extraction question, with so many effective illustrations, cannot fail, I think, to be productive of great good. Nearly twenty years ago, Dr. Cushing took the ground and held to it tenaciously as he always did when fully convinced that he was right in any position, that extraction for regulating was almost invariably a mistake. I think I have heard him say "I never advise extraction." I for one thought him an extremist, an ultra radical. My view was that of the great majority; in fact, I think Dr. Cushing was quite alone in his opinion at that time. He said, "You can always get room for the teeth by expanding the arch and allowing time for growth in the young subject."

I remember one case wherein he was consulted and most positively refused to extract two bicuspid for the bringing in of the cuspids that were apparently quite shut out of any possibility of alignment. The case fell into my hands later. I took the opposite view, extracted and "regulated." Of course, there was a great improvement in appearance and the young lady and her family were well satisfied. But I never was. As she developed into womanhood, I could see plainly enough that she lacked just those two teeth to make a proper arch and to give the right expression to her face; and moreover, never attained a good articulation of the upper with the lower teeth. There was not anything just right in that mouth.

I had other experiences similar that set me to thinking and observing. For a number of years I did a good deal in the way of regulating, till I got tired of it in connection with general practice, then I turned it over to specialists or younger men who had more time. But I have had an unabated interest in the progress of orthodontia, as we learned to call the subject, and I am ready to testify as the result of my practical experience, and observation of cases since, that Dr. Cushing's idea was the correct one. He was never a specialist in this line, and so far as I remember, never contributed a paper or took pains to place himself on record, but to those of us who knew him in Chicago, his opinions were well understood.

I have admired the courage with which Dr. Angle has stood for non-extraction, as the rule almost without exception, in correction cases.

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While Dr. Case has not taken quite the same view in theory, I am quite sure that he has come pretty near to it in practice.

The longer I continue in practice, seeing consequences, often far reaching, of accidents or mistakes, the more regrettable and often pitiful seems the loss of teeth, even the premature loss of the deciduous. As some one intimated in the discussion published, herein lies a leading cause of irregularities—extraction too early of the deciduous teeth. It would seem that nature needs the stimulating insistent presence of every root for the growth and development of the maxillary bones. In giving advice to parents and children, there is forceful demand, very often for courage, faith and patience, on the part of the practitioner—courage to tell the truth that runs counter to their opinions, faith in nature and her methods, patience to wait for growth and development.

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### A Review of "The Principles of Occlusion and Dento-Facial Relations."

By MARTIN DEWEY, D.D.S.

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In the July number of ITEMS OF INTEREST is an article by Dr. Calvin S. Case, entitled "The Principles of Occlusion and Dento-Facial Relations." Coming as it does from a man with the reputation which Dr. Case possesses, it necessarily will attract considerable attention in the dental profession. As an article which tends to advance the interests of orthodontia it is not a success, as the principles which are advocated are very old and have been given to us years ago. The interest in the article rests in the fact that it is almost wholly an attack on the "new school" of orthodontia. The reason of this attack, which is apparent to any fair reader, is that certain facts and teachings have been advocated which are contrary to the belief and teachings of Dr. Case. The teachings of the new school have not only been criticised, but have been misinterpreted in a great many cases; in fact, some of them, stated to have originated with the "new school," are entirely unfamiliar to me.

One of the teachings which Dr. Case assails  
**Extraction.** is the fact that members of the "new school" are opposed to the extraction of teeth for the correction of malocclusion. The basis of this teaching is that the tendencies should be toward the ideal. Strive to reach perfection, and when correcting

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malocclusion work toward obtaining normal occlusion. And as it is *impossible* to obtain a *normal occlusion*, if any tooth be absent, it necessarily follows that *all* the teeth must be retained in order to secure *an ideal result*. Not only is it impossible to produce a normal occlusion after the loss of any tooth, but it is also impossible to obtain a normal face after removing any of the teeth usually recommended for extraction. It affects more or less the general contour of the features. The writers opposed to this teaching say they extract "only when necessary" or when it is "demanded." As a result of such teaching by eminent men we see the wholesale loss of any teeth which dentists choose to sacrifice, and they in turn say they did it because it was "necessary," or because "the case demanded it."

The other teaching, that extraction of any of the normal number of teeth is not necessary, has been and is criticised by writers who advocate extraction and endeavor to clear themselves by the thin argument that "it was necessary." No doubt it was necessary for them to resort to such means, but to many others it is not. Some men find it necessary to extract any tooth in which the pulp is exposed, and have as much right to justify their act with the plea of it was "necessary" or "the case demanded it" as the "regulator" has to justify his removal of any of the original number of teeth if they are normally formed. It seems the extreme height of folly for any one to criticise any line of teaching because certain ideals are laid down by those teachings which the critic fails to reach.

### **Facial Harmony and Occlusion.**

Dr. Case also would establish the opinion that men who are opposed to the extraction of teeth only work to obtain a normal occlusion, even if it result in the marring of facial lines. He would establish the belief that we do not recognize the importance of striving to improve the facial harmony of the patient. It was to obtain better facial harmony and improve facial contour that we have been taught that extraction is detrimental and unnecessary in the practice of orthodontia. If Dr. Case would make himself more familiar with the teaching of the Angle School he would find that art is one of the principle subjects in the curriculum; also that it is not taught by any man whose ideas are influenced by theories of orthodontia, but by an artist who is recognized as one of the best, by men of his own profession.

Normal facial contours, harmonious relation and balance of the features are the recognized and important teachings of the Angle School. Dr. Angle's teaching is "that the full complement of teeth is necessary to establish the most pleasing harmony of facial lines."

## ITEMS OF INTEREST

### **A Case from Practice Criticised.**

Figure 1 of Dr. Case's article (July ITEMS OF INTEREST, page 511) shows facial outline of one of his patients. Dr. Case fails to give age of patient, but I would judge from the models that the second molars are not fully erupted; but the models are very poorly shown. I think the patient is about twelve years of age; features undeveloped, anterior teeth crowded and bunched. Why? The arches have not developed with the teeth; neither is the face fully developed. We have the teeth of any adult in the mouth of a child. Very often we have parents calling our attention to children's teeth at the time of the eruption of the permanent teeth, and claiming the teeth are too large. They are unaccustomed to seeing such large teeth in the child's mouth, and some dentists seem to have never become accustomed to it either. It results often in the anterior teeth being crowded and bunched, not because they are too large for the arch, but because the arch is undeveloped. If they do erupt in their proper place and are not crowded, they may seem to be prominent because the remaining parts of the face have not developed. I do not know by what standard or type Dr. Case judges his patients' faces when he says that Figure 1 is suffering from protrusion. We have a fine forehead, fine nose, a nearly straight upper lip, and not a prominent one. If Dr. Case will examine any of the standard works of art he will find that the lip which belongs to the forehead and nose of that type is slightly curved, and the upper lip forms more of an acute angle with the nose, lower lip slightly farther back than the upper. If such a condition had been obtained the facial outlines (Figure 1) would have been bettered and would have improved as the patient grew older. Judging from the result, if Apollo, Venus, Mercury, or Diana were to appear in Dr. Case's office he would at once proceed to treat *them* for "protrusion" of the teeth and inharmony of dento-facial outlines!

No doubt there are some cases in which the permanent molar may move forward from loss of deciduous teeth, and such cases are recognized by men of the "new school" and treatment outlined. Dr. Case seems to have arrived at the conclusion that the "new school" does not recognize the above character of irregularity, because we have not seen fit to place it in some other class of malocclusion than the three classes arranged by Dr. Angle. Dr. Angle's classification is not based on "teeth in distal or mesial occlusion," but on the mesio-distal relation of the molars. By that is meant the relation the molars of one arch bear to the molars of the other, and not the relation which the teeth bear to the face. Owing to the numerous different types of faces it is impossible to successfully classify malocclusion with reference to the face. In a classification that is

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based on the mesio-distal relation of the molars of one arch with the opposing arch I would like to know how the molars can occupy any but one of three relations to one another. They must be normal mesio-distally to each other; the lower molars mesial in relation to the upper or the lower molars distal to upper. The lower molars may be the ones that are normal to the facial outlines, but that does not change the classification. Different degrees of malocclusion under this classification will cause different facial outlines, depending on the individual type of face.

Dr. Angle's classification does not attempt to outline the treatment of cases any more than the classification of disease and pathological condition which are classified in modern medicine attempts to outline treatment. Any physician or surgeon who would attempt to diagnose his case and give treatment at the same time would but show his ignorance. In the treatment of a pathological condition of today the aim and hope of modern medicine would be to again establish the normal. The hope of the orthodontist of the new school is to establish a normal occlusion and normal facial outlines, and not to classify malocclusions so as to outline the treatment; but to classify malocclusions so that one may see wherein they differ from normal occlusion.

Cases in which we have a full (bimaxillary) protrusion or retrusion are not classed as normal occlusion, even if the molars do occupy a normal mesio-distal relation to each other. If Dr. Case would become more familiar with Dr. Angle's classification he would find that one class was made up of those cases in which the molars occupy normal mesio-distal relations to one another, while the anterior teeth may assume any of the forms of malocclusion that is ever found. Is that not sufficient to include also cases of "full (bimaxillary) protrusion or retrusion"?

Dr. Case seems to have the idea that all cases of mesio-distal malocclusion which are treated by men of the new school, are treated with the idea in view of obtaining a normal occlusion by equal reciprocal movement of both upper and lower teeth. I will say that if the case so demands treatment, we would try to treat it along those lines. Also that the intermaxillary force is used in other cases of malocclusion, in which the mesio-distal relations of the molars are abnormal. Judging from Dr. Case's article he has never grasped the full usefulness of his (?) discovery, intermaxillary force. By a careful adjustment of appliances the intermaxillary force can be made to move the teeth of one arch without disturbing the teeth of the opposing arch, and that, too, in either a *forward* or *backward* direction. If the facial outlines so demand, the lower teeth are moved forward the proper distance, or in other cases the upper are moved backward, and without a reciprocal movement of the

### **Intermaxillary Force.**

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teeth of both jaws toward a common center. Such cases as are shown in Figures 7 and 8 of Dr. Case's article can be successfully treated by the intermaxillary force, and without extraction, so as to obtain "dento-facial harmony," which to us is normal occlusion and harmonious facial outlines. The intermaxillary force is applicable in such cases as I have stated, and various degrees of movements may be accomplished. It is a factor of much good in the hands of the experienced, but with those who have not mastered the full possibilities and working peculiarities of the same it is capable of producing much harm.

The teaching of the "new school" is not the invariable practice of an equally reciprocal movement of upper and lower teeth in *all* cases, but the movement of the teeth in such a manner as the particular case demands. Always treat the case according to the facial demands of the patient; establish normal occlusion, for by so doing I think you will have established the most harmonious facial outlines. Avoid extraction, for if once resorted to you have destroyed *all* possibilities of ever gaining a normal occlusion. In the majority of cases where extraction is resorted to one deformity is produced in order to make another deformity less noticeable. Sometimes the face is *seemingly* improved by extraction, but more often the last result is worse than the first, especially later in life. I am certain that you can never obtain a natural facial outline or a normal dento-facial relation by extraction.

Therefore I say strive to reach the high ideal of normal occlusion and the improvement of the facial contour and balance of that particular individual, and in so doing you will soon see "that the full complement of teeth is necessary to establish the most pleasing harmony of facial lines."







### Hints on Dental Practice.

By DR. L. K. FULLERTON, Denver, Colo.

*Read before the Colorado State Dental Association, Colorado Springs, June, 1905.*

Mr. Chairman, and Members of the Colorado State Dental Association:

In presenting this paper, I wish it understood that even my own views on the subject are not always carried out in my every-day practice, as we must all be governed by circumstances. But, by the hearty co-operation of our fellow practitioners and faithful adherence to pure professional ethics, we will be stimulated to the course that will ever guide us on the road of progress.

The profession of dentistry, a few years ago, was of low estate and looked upon almost as a vulgar occupation, by the masses, and was practiced by but few who were not ignorant of its principles and requirements, but it has been impregnated with learning, art, and genius; thus stimulated, it has become of good repute, and now holds a position which we trust it will maintain while man shall people Mother Earth, and neglect to look after that portion of his anatomy now confessed to be most necessary to his health, happiness and long life.

That science holds a large place in the proper preparation of the dentist and his successful work, is shown by the fact that all of the great institutions of learning have added fully equipped dental schools to their establishments.

The evolution of dentistry from its despised condition may be likened to that of the common thistle, which, when crossed with a brilliant hued plant, drops the thorns, discards its evil points, and gives us the beautiful coleus of today, the most luxuriant garden and lawn illuminator that

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Nature, aided by horticulture, has ever produced. Dentistry, as it was, the common handicraft thistle of the past, with its many points of abhorrence, today engrafted with science, gives us the dental surgical art of which we are proud and of which the world shows its substantial admiration and appreciation.

We are not a part of anything, but something within ourselves. There is too much in dentistry for even a superior genius to master. The labor is more than body and brain can stand. The tide is flowing the other way. We have specialties in dentistry; dental surgery, operative dentistry, prosthodontia, orthodontia. Though fond of cutting, yet we are being carved up into many sub-divisions to satisfy the demands of the hungry public. The day of the closed doors to the laboratory is a recollection of the past.

The age of slow progress is buried deep beneath the ground where grows the tree of knowledge and advancement. The carcass of the past is fortifying the luxuriant growth of the present. Lightning flashes around the world in the twinkle of an eye, making one, of far-dissevered nations. Night is turned into day; distance almost annihilated, and the electric spark is held with curbed bit to obey the operator's will. The microscope makes the atom visible. Steam is hurling the head and hand of expertness here, there and everywhere, that man may see, hear and have. We must all put our shoulders together to push the wheel of progress, if we expect success.

The professional man, dental practitioner, or  
**Fees.** - he who has no higher regard for his ability, than to place his earning capacity at merely so much an hour or a day, having no regard for the responsibility he takes or the position his calling occupies, properly belongs to the tin-pail brigade, and should be placed at the rear of a \$1.10 per day pay-roll, with the section hand on a narrow-gauge railroad. The dentist today who tells you that he will place a first-class gold cap for \$5.00, and that the man who is charging you more is a robber, is either a natural born, or an educated liar, or else has no knowledge of his profession.

The cost of materials seldom, if ever, should be taken into consideration for the compensation you are to receive for professional services. The benefit you have done your patient may be taken as a basis for your charge, after you have considered the financial condition of the patient, remembering ever that the poor and needy are entitled to aid and relief.

The professional man of today is the one to educate the public to appreciate his services, and thereby receive proper compensation. If competent dentists would live up to our code of ethics, lay aside the momentary greed for the almighty dollar, and treat their professional

brothers as fathers do sons, or in other words, abide by the Golden Rule, we would all be working together toward that end. It is, nevertheless, most unfortunate alike for the general public and the members of our profession that the highest code of ethics is only too often more honored in the breach than in the observance. For paltry momentary profit, justice and fair dealing are forgotten, and our noble profession reduced to the level of a commercial trade no higher than that of a mechanic.

**Value  
of Education.**

I am of the belief that the present conditions are partially brought about by the fact that the majority of the practitioners of today are not educated men, and have no higher regard for the position they occupy and the services rendered than the common working man. Take the graduates from our dental schools for the last year and see how many have previously received a diploma from any other institution of learning. In speaking with some friends on the subject, the other day, one remarked, "Yes, he was a policeman two years ago," another, "Yes, he was a barber," and so on. The successful dentist of the future must be an educated and polished gentleman, in addition to being a master of his profession.

From the progress we have made in the last few years, we cannot in our profession dream or surmise, much less predict the future. The Archimedeian lever, that will elevate effort and ability, is the reduction of the amount of work we do, and the increase of the fees. With the dental ascendancy that America possesses today, what must be the result in a few generations, on a people educated to treasure their teeth as pearls of priceless value? Without preservation, a people cannot be truly healthy and happy, and, consequently, great. The ideal dentistry will only be universally practiced, when the public demands it, and this condition can alone be brought about by the united effort of the profession to properly educate the public. Then let us one and all make it our consistent effort to advance both ourselves and our most honorable profession.

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## **Porcelain Inlays and Other Fillings.**

By DR. H. A. FLYNN, Denver, Colo.

*Read before the Colorado State Dental Association, Colorado Springs, June, 1905.*

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The dental profession has at its disposal various forms of material for filling cavities in teeth. The more common are gold, amalgam, inlays of different varieties, gutta percha, and different kinds of so-called cements.

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These materials by custom have been divided into two classes—temporary and permanent—but the terms are purely relative, the permanency of any one depending largely on the environments and the skill of the operator. They are all valuable, each having characteristics and qualities possessed by itself alone. The theory that one of these is better than all others is absurd; that one is better than any other, equally absurd. But, paradoxical though it sounds, one is better than all others if selected according to the indications. Then the success or non-success of any filling is largely dependent upon this one thing—whether it is or is not indicated.

Of more importance than the preparation of the cavity, of more importance than the preparation and insertion of the filling, is the selection of the one or more materials which will best meet the surrounding conditions. Nor do I fail to appreciate the importance of the proper preparation of the cavity or the proper insertion of the filling, and that they are important, leading up to the complete and perfect operation. A perfect filling should have hardness and toughness, to stand the stress of mastication, compatibility with tooth structure, and color corresponding to the shades of different teeth.

Unfortunately no one material has these qualifications. Gold has hardness and toughness, but lacks in color and adaptability. Amalgam has adaptability and hardness, but lacks somewhat in toughness and color. Inlays sometimes have the color, always the hardness, but lack toughness, and are of no value without the aid of an intermediary to hold them in position. The cements and gutta percha are excellent in adaptability, medium in color, but lack durability if used promiscuously.

In selecting one of these materials for the filling of any cavity, the great question is, which will be most durable and give the greatest comfort and satisfaction to the patient. This is the *sine qua non* of the whole operation, and on this decision depends largely the success or failure of the operation.

**Gold  
as a  
Filling Material.**

A gold filling pounded into a frail tooth may result in an acute attack of pulpitis, where amalgam might have been inserted with perfect comfort.

In placing the filling in the cavity the restoration of the tooth must be perfect, making the occlusion such that the original design may be carried out, a part of a machine for the proper mastication of food. This occlusion is a vulnerable point in many fillings; they will not stand the enormous pressure of the muscles of mastication. Nor is this to be wondered at when we consider that these muscles exert a pressure of from seventy-five to three hundred pounds. There is but one filling in the entire category that will, year after

year, on the occluding surfaces of bicuspid and molars, stand this wear and tear, and that is gold.

**Amalgam.** A good amalgam is second and there are no others. The weakness in the amalgam is its brittleness, the breaking away of small particles at the junction of the filling and edge of cavity, permitting recurrent decay; but in spite of this there are hundreds of thousands of these fillings in these positions, with records of the hardest kind of service from ten to forty years. But at cervical margins, in inaccessible cavities extending well under the gum, the silver, tin, copper amalgam is king. In these cavities no other material approaches it, unless it be gutta percha. No other filling material is so misused—inserted in the most slovenly, slipshod manner, literally stuffed into a cavity, no attention paid to contouring properly, no attention paid to edges; no attention paid to finishing; and yet, with magnificent results in durability and prevention of recurrent decay. From no other material do we get such results from such sloppy manipulation. I firmly believe that fifty per cent of the molars which have been crowned, could have been better restored by the insertion of an amalgam filling, with more durability and ten times more comfort to the patient. Pyorrhea, periodontal inflammation, the closing of the inter-proximae space which generally results from gold crowns, could have been entirely obviated by a well inserted and properly finished amalgam filling. In frail teeth, with large cavities, whether devitalized or not, with a lining of a good cement and then the insertion of a first-class amalgam, we have a filling better than gold, better than any inlay, better than a gold crown, and the satisfaction that we have served our patient in the best possible manner.

Dentists, as a class, are prone to fly off at tangents. A new process is brought out, a new invention is given to the profession, a new medicament is recommended, and immediately it is taken up, lauded to the skies as the one perfect thing of its kind. Often each of these is recommended by some prominent member of the profession, whose interest in the matter may or may not be wholly disinterested. His motive may be entirely selfish or unselfish. He may be interested in its manufacture, or he may firmly and honestly believe in its merit. In dentistry, more than in any other profession, time is the only sure test, the only sure criterion. These recommendations are often made prematurely, and time proves their utter worthlessness, but not until the profession has been victimized and lost much prestige. The graveyard of our profession is filled with inventions for obtunding sensitive dentine, of mummifying pastes, insoluble cements, perfect alloys, and many others, both medical and mechanical; and I believe a large plot in this cemetery is being filled

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right now by the extremists in porcelain inlays. He who runs may read. Perhaps some good in a modified form has come from some of these, but nothing to compare with the cruel disappointment and disaster following in their wake. With these lessons of the past before our eyes, we should learn one thing—conservatism.

### **Porcelain Inlays.**

To return to our text, the best filling is the one indicated. In this respect porcelain inlays occupy a large field. In selected cavities, with perfect work, it is an ideal filling; but we so seldom see perfect work. Perfection in this work demands the very best that is in us, not only mechanically, but artistically. Not only one's hand must be taught exactness, but his eye should be equally exact in distinguishing color and shade. On labial surfaces, in approximal cavities on the six anterior teeth, with perfect fit and perfect color, it is the very best material.

On the cutting edges of incisors, on the occluding surfaces of bicuspid and molars, with normal occlusion and normally developed muscles of mastication, it should seldom or never be used. The hardness of this material recommends it, but its brittleness often damns it. The breaking away of small particles on the edges, the washing out of the cement, followed by dislodgement or decay, soon proves the utter worthlessness of this filling in these positions. Nothing is stronger than its weakest part, and no inlay is stronger than the cement which holds it, and if the cement be exposed from any cause, as breaking of edges, or imperfect fit, then the whole operation is no better than a cement filling. Then, why should this material be used, when clinical experience has proven that gold or amalgam is far more durable, far more satisfactory?

### **Gold Inlays.**

In compound cavities, with frail walls, a gold inlay is very satisfactory and more durable than porcelain. Especially is this true if the gold can be burnished to make a perfect joint. But, after all, considering the ease of insertion, the lack of nervous strain on patient and operator, the durability, the general satisfaction, is not an amalgam with a lining of good cement, in molars and on the posterior surfaces of bicuspid, the best possible inlay?

In conclusion, I reiterate that no material is perfect; but the durability and success in the use of any one is dependent largely upon its selection, according to the indications.

### Discussion of Dr. Flynn's Paper.

**Dr. F. V. Herbert,  
Denver, Colo.**

The subject on which my friend has so ably written is one that concerns the man in dentistry who conscientiously tries to do his best to preserve the human teeth as permanently as possible. His discussion of the various filling materials is made from the standpoint of one who in the main endeavors to practice conservative methods, not one who makes wild statements with no foundation of common-sense principles.

The dental profession is made up of men with widely differing views and ideas, and how few of us are really practical in the methods we follow in this important work.

I have thought for years that the one filling of them all is gold. I have thought that the man who has sufficient grasp at conditions and a knowledge of the many kinds of gold preparations and a reasonable share of skill can use these different forms to the better preservation of teeth than any other material. I have long thought that the combination of cohesive and non-cohesive foil in the same filling makes the ideal stopping—if you please soft foil for sealing the margins and cohesive for strength and contour.

Again, the heavy foils, say No. 60, are admirable for contour—both the gold and the gold and platinum.

When I see fillings of this character that have been doing service for ten, twenty and thirty years with a surface as free from pits as burnished steel, I think it is work that has been well done and tooth preservation that is seldom equaled in present-day dentistry.

I must make the statement that no work in dentistry requires the skill that gold fillings exact, and again, energy is a very desirable and important element in the work.

The alloys, the new ones, those of simple formulæ and of the quick-setting variety, have made positions for themselves that cannot be questioned. In large cavities in molars much art can be displayed in their placement and much permanency is the result when used with care.

As to the cements, they have also been improved in recent years. Yet I think their field of usefulness as a filling material is limited. As to porcelain, I think in selected cases it makes an ideal filling, provided, of course, the color problem is one of perfect harmony.

My honest opinion, formed by some experience in the work and observation of other's efforts, has taught me that much is yet to be learned regarding it. I will say that not in my day in dentistry have so many lurid blunders been made in any part or side of our work as in this work.

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When a man stands up and says porcelain can be used in any place gold can be inserted, and tells me of its equal permanence and strength, I think I am very much wrong if I do not consider him an ass.

When the color problem is nearer to definite solution, when a cement is brought out that will hold these inlays more permanently, when more strength in the bodies is secured, then and not until then, will I agree with some of these porcelain apostles.

My honest opinion of the whole subject is that there will continue to be room in the ranks of dentistry for the skilful gold operator, and I have no troublous nightmare that his field of usefulness is at an end.

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### Porcelain.

By DR. S. DAVIS, Denver, Colo.

*Read before the Colorado State Dental Association, Colorado Springs, June, 1905.*

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The compatibility of porcelain with tooth substance is one of its greatest recommendations. Metal fillings are not to be compared with porcelain for comfort. Those who have had large fillings removed, especially from the molar teeth, notice the improvement at once. There is none of that annoyance of thermal change, or foreign metallic tastes. I know this by actual experience. One to fully appreciate porcelain must have the experience of wearing it.

It is a mooted question which is preferable, high or low, or intermediate. Apparent impossibilities are easily overcome when you know how. Something difficult to do is something to be overcome. This piece of heroic philosophy may be applied to dentistry or the working of porcelain. The one who will not try to overcome porcelain might better go into some other business. Many difficulties will be met in the baking of porcelain. When adhesive gold was introduced, the cry was "too much gold in sight." The dentist delighted in showing his handiwork. The next move was to cover the whole tooth with gold, so that today you see gold glittering in the mouths of those on the rostrum, the pulpit and the stage; everywhere you go you see this monstrosity. Not very flattering to the dental profession, is it?

Porcelain is not excelled in beauty by the pearl. With it undeveloped teeth can be restored to the natural size and appearance, all imperfections in a tooth down to the worst old snag. The mouth that resembles a jeweler's show window will soon be no more. The one who is not working on this line is behind the times.



It would appear like an impracticability to line a cup with a fragile piece of metal, fill it with a material which contracts largely in baking, strip off the metal and have the material fit the cup. Yet this is just what is done in making an inlay; the shrinkage is overcome by two or more bakings; the thickness of metal by filling flush with the matrix; when stripped the inlay will sink to the margin of the cavity and make a close adaptation. This is easy when making small inlays.

**The Matrix.** Larger inlays are more difficult on account of the shrinkage in the first baking. If you are using low fusing porcelain such as Jenkins', or my own

which fuses at a lower heat than gold, take scraps of pure gold, melt, roll and anneal. Nothing is better for your matrix. Place a few grains of plumbago in your matrix, line your matrix with a thin coating of porcelain so that in baking the first time it will form fissures and not draw away from the sides, warping the matrix. Now fill the matrix with porcelain powder mixed with water or alcohol, shaping it down to make as compact as you can. With a thin blade divide your porcelain so that it will shrink from the center.

**Investment.** The larger the inlay the more we need an investment to support the matrix (it is not necessary to send to Germany for the investing material). Take

asbestos, burn it until the fiber is brittle, rub it up or grind it until it will pass through a fine sieve, add to this one-half or less of plaster of paris. With this can be made a pretty good fitting inlay, using the investment as a matrix or mold.

Mix the investment thin, using the minimum quantity, merely enough to allow the matrix to sink and come up over the edge to hold it firm. Now we are coming to the very important part, the drying and baking. Do not burn out alcohol, and do not dry out too fast. If you are using the ordinary electric furnace, slide the porcelain into the furnace, holding a piece of fire clay slab over the porcelain until the investment heats up from below, forcing the air out of the porcelain, allowing the molecules to drop together, making a beautiful true to color porcelain; otherwise the heat from the upper part of the furnace will sear over the porcelain enclosing air bubbles, making it brittle and destroying that lifelike appearance that porcelain should have. We frequently hear of burning out the color. This is more of a delusion than otherwise, due to porosity or air bubbles. Examine our porcelain teeth with a microscope, and you will be surprised. Better judge the quality in this way than to suppose you are getting a superior article on account of the high price you pay. If we would refuse to accept all porous teeth, there would soon be an improvement in the manufacturing.

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Here are some old teeth made years and years ago. Compare them with some of the high priced teeth of today; they will bear inspection inside and out. You will have to hit them a hard crack to see the inside. When these teeth were made it was not necessary to carpet the floors of the dental depots to save the breakage of teeth by dropping.

Our electric furnaces, I believe, could be improved on. Those wired on the outside of the muffle make a more even heat than those wired on the inside; a ventilation at the upper part perhaps would be an improvement, or if wired so that they would not heat up so fast all the sides and the upper part of the muffle. The muffle is usually in the electric furnace, and it should be the reverse of this.

### Discussion on Dr. Davis's Paper.

**Dr. E. O.  
Matthews,  
Denver, Colo.**

As Dr. Davis says difficulties are not overcome in a short time and it truly applies in the case of the porcelain inlay. It is an experimental line of work, and one in which there is a great chance for improvement. There are so many things in which the operator may fail, and it takes such close work that it seems tedious to the beginner. Then, too, the busy practitioner who can insert his gold filling in much less time and feel sure of his results, stands in awe at the proposition.

We all work in certain channels. Some are inclined to do that which they like best, others that which they can do easiest; but that to which we are accustomed, we do easiest and perhaps best, so that is the natural trend. The man who is succeeding with this gold filling thinks long and hard before taking up the new and imperfect article.

There must be a start made with the porcelain inlay and it must be made with precision. The busy practitioner cannot jump into it on account of the great amount of time required, and the man who is coming to the front must proceed with the greatest care. Why must we start? Because of the important place that porcelain is taking in dentistry, and the man who can successfully manipulate it will be the winner.

To the patient who craves for the display of gold, it is a hard proposition to advise porcelain, but persons who think of the gold as objectionable and unsightly are at once interested and the porcelain inlay appeals to them. It is one of the things long dreamed of and they are willing to accept under unfavorable circumstances. But you must not say this is the ideal filling, you cannot detect it and it will last longer than the gold filling. Such remarks will surely get you into trouble, for should you insert an inlay with exceptional results, the patient will say "I can

see that line by looking closely and when I look at it this way it is a different color from the tooth." You might better say "The inlay seems to be giving very good satisfaction when properly inserted. They have approximately the appearance of tooth structure and are not noticeable to the average person. Decay does not seem to attack them as readily as other fillings, so we have every confidence that they will prove satisfactory. It takes a long time to make them and we may not succeed the first time. It is often necessary to make them over to get the results we wish, but if you are willing to attempt them under these circumstances and would appreciate something approaching the appearance of the natural tooth, and doing away with the objectionable features of gold, we are sure you will feel well repaid for the extra time and expense involved." For no other person should we strongly advise the porcelain inlay.

Now, where shall we insert the inlays? Of course, we are most anxious to place them where gold would be most conspicuous and objectionable. We at once think of the large approximal and incisal cavities of the six anterior teeth. These are the hardest in which to retain fillings, yet inlays may be placed there with good results. If they will succeed in such cavities, can they not be placed in any cavity? They can, but in places out of sight and with difficult access, it is such a tedious task that they should not be attempted.

The first thing to settle in deciding for an inlay is, can you devote sufficient time to do it just as well as it is possible to be done? Each detail is important and has to be carried out carefully; the cavity, the anchorage, the margins, the color, the cementing, the occlusion are each important. If the average operator attempts the inlay in this manner, he will in time succeed and feel proud that he has mastered the work.

Improvements are fast being made, so that our porcelains are stronger and more toothlike in appearance, and they are much easier to manipulate. With our low fusing body we get our colors easier, and we work more accurately with the low heat, as you can see the porcelain fuse so plainly and always remove it at just the correct time.



## Some So-called Diseases of Dentition.

By R. P. McGEE, M.D., D.D.S., Denver, Colo.

*Read before the Colorado State Dental Society, Colorado Springs, June, 1905.*

The prevalence of intestinal and nervous diseases among children between the ages of six months and three years has led to the general belief that dentition may be the immediate cause of many of these conditions, instead of being merely a coincidence.

It is, of course, possible and probable that delayed or disturbed dentition may induce serious derangements, but the simple fact of the prevalence of nervous and digestive disorders during the period of dentition gives no good ground for the consideration of dentition as an etiological factor in these cases.

The nervous system and digestive apparatus of a child of six months are in an elementary state and are capable of the performance only of the simplest functions.

About one-half of the healthy children cut their teeth without visible symptoms, local or general; in the other half some slight disturbance is seen, usually lasting only from a day to a week. These symptoms are disturbed sleep, fretfulness, loss of appetite, usually an increased flow of saliva, a slight stomatitis and a constant desire to bite something. The bowels are usually constipated, but diarrhœa may be present. Symptoms more severe than these are uncommon in a healthy child, but frequently occur in delicate or rachitic children. Convulsions due to dentition in healthy children are very rare, but in the rachitic child are often present.

It must be remembered that at this time infants are in a condition peculiarly susceptible to almost any nervous or gastric disorder, and that the digestive tract may be excited to diarrhœa, and inflammatory states by the slightest carelessness in regard to diet.

The very fact that the teeth are developing and coming into position indicates that the liquid diet that **Importance of Proper Diet for Infants.** has heretofore been sufficient for the needs of the child, will no longer support the added demands for nutrition that the rapid development now makes necessary.

Yet at this period the digestive tract can only take care of the simplest solids. We know that nature provides food for the development of the child up to the period of weaning, by causing the mother's milk to gradually change from a practically predigested fluid, to a fluid containing the highest percentage of nutriment in any one known substance. It would be an utter impossibility for a child of three weeks to digest the milk of a mother whose babe was three months of age.

Why is it then that the simple process of teething must be charged with causing so much suffering in the infant? There are as many teeth cut in the winter as in summer, yet most of the trouble comes in the warm months.

The child will be given food fit only for an adult by its indulgent parents. When the family sits down to a meal, baby will be fed green vegetables, cakes, pie and pastry. At first he makes a wry face and spits it out, but after repeated attempts he swallows it. Then this food passes through the stomach and the delicate little intestines, acting as an irritant, and soon we have colic, diarrhoea and frequently dysentery, in case after case where there would have been no disturbance had a proper diet been pursued.

**Disturbances  
Due to Dentition.**

There are conditions, however, that are the result of dentition. These are usually nervous reflexes and stomatitis produced by pressure upon the dental branches of the fifth nerve, by the advancing tooth which has met with a resistance in the overlying tissue that checks or stops its upward movement. Here the delicate pulp which is building up a tooth form with its cementoblasts, receives all the pressure of the eruption, and the result is a regurgitant pressure upon the fibers of the tri-facial nerve which, being intimately connected with each individual cranial nerve from the third to the twelfth, can and does produce tonic and clonic spasms, otalgia, neuralgia and a host of those painful conditions that result from reflex nervous impulse.

When dentition is to blame for these reflexes, the mouth of the infant is hot and dry. There is usually a stomatitis. The gums are red or purple, swollen and tender, the infant starts suddenly from sleep, cries as from severe pain, has a temperature of from one to three degrees above normal and shrinks from the fingers that would touch the gums.

**Treatment.**

In my opinion, it is here an absolute necessity to freely lance the gums over the advancing teeth. It is at times necessary to repeat this operation several times. The constitutional treatment should be such as, in your judgment will tend to subdue the nervous reaction and promote an easy and regular bowel action.

Being a follower of Hahneman, my treatment in these cases usually consists of the tincture of aconite, tincture of belladonna, tr. ges or tr. of chamomilla from the 1X to 3X, according to the age of the patient and the severity of the symptoms. In using these tinctures, I put qt. V in one-half glass of water and give one teaspoonful each half-hour.



## **Treatment of Putrescent Teeth and a Permanent Root-Filling.**

By DR. N. N. WYCOFF, Trinidad, Colo.

*Read before the Colorado State Dental Association, Colorado Springs, June, 1905.*

In presenting this paper I do not wish to lay claim to any treatment or operation which is entirely new or original, but believe there may be some points brought forward with which some of you are unfamiliar and which I can explain and defend as feasible, commendable and successful in the practice of our profession.

In no other branch of dentistry are the conditions so varied or the treatment so diversified as in connection with pulpless teeth. While we may be entirely familiar with the physical and pathological characteristics of the tissues a correct prognosis is sometimes difficult.

In studying my subject I deem it necessary to consider pulpless teeth under two classes, viz.:

Class I. Those which have died through mechanical causes and thermal changes.

Class II. Those dying from infection through decay subjecting the canal contents to inflammation, suppuration and death. With both classes the most important factor is the use of every antiseptic precaution, as we will invariably have a septic condition present at the apex of the root, with a necrotic or pericemental trouble ensuing, if careless.

With Class I; death by mechanical changes;

**Treatment in Class 1.** apply the rubber dam before an opening is secured into the canal, so that all danger from further infection by means of the numerous species of bacteria present in the oral secretions may be obviated. Wash out with peroxide of hydrogen and warm water, dry with alcohol, disturbing the inner contents of the canal as little as possible, until sterilized.

For anterior teeth I use oil of eucalyptus; posterior teeth, beechwood creosote, on a small wisp of cotton, sealed in the canal loosely with cement. After three or four days reopen with rubber dam applied, wash out with alcohol, and with a broach remove all the contents of the canals thoroughly, then dress with iodine and creosote, or eucalyptus for four or five days, when root canal can be safely and permanently sealed.

Where death has resulted from infection by

**Treatment in Class 2.** decay, and inflammation of the peridental membrane is involved:

First, where there is a blind abscess, drain tooth with peroxide of hydrogen and warm water, open as thoroughly as possible, then apply

the rubber dam, dry with alcohol, insert a loosely placed cotton dressing with Black's 1-2-3, not closing the foramen, seal with temporary stopping, perforate and paint the gums with equal parts of iodine and aconite, avoiding all unnecessary pressure during the treatment. After three or four days if inflammation has not subsided and pus is still present, repeat the treatment.

Should there be no pus nor inflammation present, treat as above described for Class I, when there is not the complication of a blind abscess.

If the abscess has a fistulous opening, wash it thoroughly with peroxide of hydrogen and warm water, forcing the same through the fistulous opening. Then fill the cavity with gutta percha, puncture the filling and insert the nozzle of a hypodermic syringe partly filled with creosote or eucalyptus, forcing the medicine through until it appears at the opening in the gums; then dismiss the patient, leaving the cavity open, and repeat the operation in three or four days. After this treatment the same methods can be applied as above described where no complications previously existed.

Now we are ready for a filling which should

**Root Filling: Cannin,** possesses the properties of being germ-proof, anti-septic, non-irritant, and permanently seal the apical foramen. This last property (permanently sealing the apical foramen) I believe to be the key to success or failure.

The various root-fillings tolerated by the profession are usually not used, but abused, and in most cases canals are imperfectly sterilized and recurrent sepsis is brought about by disregard of this principle.

After experimenting with chloro-percha, iodoform, zinc oxide, creosote and several other combinations of various materials for over a year and many times only partly filling a canal, no matter how determined I was in the accomplishment of the same, I became interested in several articles on tannic acid, iodine and cotton and decided to try the same, after convincing myself that the properties which a permanent root-filling should possess was embodied in the above.

First—Tannic acid is an astringent and styptic which tans into leather any organic tissue that may still remain in a canal and renders the same inert.

Second—Iodine is antiseptic and disinfectant.

Third—Cotton is the only germ-proof material known, as evidenced by the use made of it by the bacteriologists.

Fourth—The iodine and tannic acid have a chemical action upon the cellulose in the cotton forming a new compound as well as throwing down metallic iodine. This can easily be proven by taking a pellet of



## ITEMS OF INTEREST

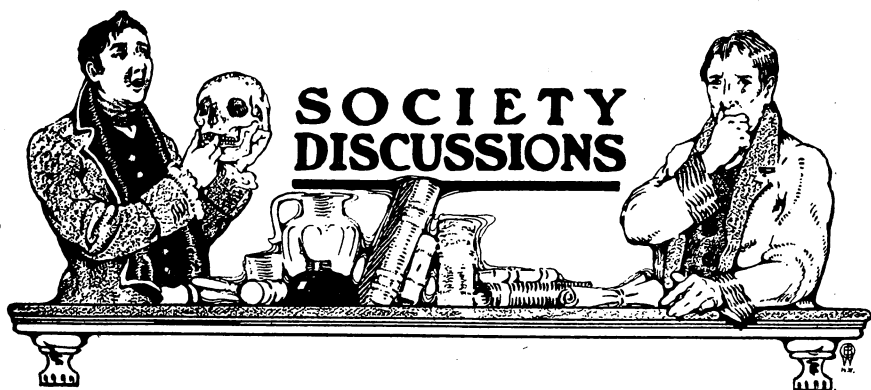
cotton, dipping in iodine, then tannic acid, pressing out the surplus liquid and allowed to dry in the sun.

A thread of cotton is wrapped around a smooth broach, dipped into tincture of iodine, then into finely powdered tannic acid, then forced to the apical end of the canals. Dry the canal so that all excess of iodine is removed (and there should be very little); wipe out canal with alcohol and then fill with whatever material suits the operation. I generally use medicated gutta-percha covered over with cement.

Discoloration of tooth will result only from carelessness in method of operation. Sepsis will not recur, as you have a material which becomes as hard as cement, sealing the apical foramen perfectly, non-irritant, antiseptic and germ-proof.







## **New Jersey State Dental Society—Thirty-Fifth Annual Meeting.**

**Wednesday, July 19, 1905.—Morning Session.**

President Chase called the meeting to order. The Secretary called the roll.

The opening prayer was offered by Rev. John Leroy Taylor, Ph.D.

We will now hear a letter read from Dr.

**The President.**

Stockton.

Secretary Meeker then read the following letter:

East Orange, N. J., July 15, 1905.

*Mr. President and Gentlemen, New Jersey State Dental Society:*

For the first time I am absent, except when I have been out of the country. I regret it very much for I was at the "borning" of this child and it is my pet. As a fond and loving mother looks upon her boy and sees him grow into lusty boyhood and strong manhood, and as he stands among his fellows and towers a little above them, she points with pride and says, "that is my boy," and so I have looked upon this Society and with joy and pride have seen it grow until today it has not a peer in the land. It is simply marvelous that in the small State of New Jersey we have so successful a society. Last year the attendance (registered) was between seven and eight hundred.

What has brought all this about? One of the principal factors is the reward of labor and faithful service. Some of us older members look about and select for lower places those believed to be qualified to go up higher, and they are placed in positions, and if they prove themselves worthy they go higher up until the great honor, the Presidency of the New Jersey State Dental Society, is theirs.

## ITEMS OF INTEREST

A young man does well in college and graduates high up in his class or with its honors, and feeling that there are other heights to climb he takes a post-graduate course and tries to better fit himself for life's stern duties. So does membership in the Society act as a post-graduate course.

Our Society has done wonders for its members and they are the peers of any in the land. They are gentlemen and no dishonor has touched them.

You should be, by your just dealings and honest living, the shining light, the important man in your community, and thus honor dentistry, the Society and yourselves.

I am sorry I cannot be present to join in the discussion of the President's address. If I recollect aright, it was on my motion that the address should be discussed immediately upon its delivery, and not referred to a committee. To strike while the iron is hot is much better than waiting until it is cold. During my illness some neighbor boys of mine watched my hens—they brought me eggs yet warm, and I confess I much preferred them to stale ones. So I hope while the President's egg is warm you all will cackle.

I would like also to say a word on my pet theme, the interchange of licenses. It is very discouraging that a matter so just and right as the Asheville Resolution should be practically ignored by the State Boards, after it has been twice unanimously adopted by their representatives in the National Board meetings—at Asheville and St. Louis. It is coming, but it is too slow in its progress. Connecticut has had the resolution incorporated in her law—this is progress—and I hope soon every State Board will take it up and go to their legislature and do likewise. New Jersey in this, as in other progressive matters, leads them all.

Now, all know that I have been ill. Twice I knocked at St. Peter's door, but he did not heed. Presumably he was on an automobile trip, and so I am with you sinners for a while.

I am very much better, but my nervous system received so many hard shocks that it is hardly in condition to stand the strain incident to the journey and the meeting with so many dear friends.

I shall take up my practice as soon as the weather will permit, and then at the fall meetings I shall have the great pleasure of seeing you all again.

With my best wishes and kindest regards for you all, I am,

Very sincerely yours,

CHARLES S. STOCKTON.

On motion of Dr. Charles A. Meeker, it was unanimously resolved

## SOCIETY DISCUSSIONS

that the foregoing letter be received and inserted in the minutes and that a telegram containing the greetings of the Society be sent Dr. Stockton forthwith.

President Chase then called Vice-President Dunning to the chair.

**The Chairman.**

Gentlemen you will now listen to the reading of the President's address.

### President's Address.

Fellow members of the New Jersey State Dental Society, I extend to you a most sincere and hearty greeting, upon this, the thirty-fifth annual meeting of our society, and to each and every stranger within our gates, I, in the name of our society, bid welcome.

It is the custom for your President to make you an address upon this occasion, outlining the work accomplished during the year and offering suggestions or recommendations for your consideration. The number and class of firms exhibiting their products for the inspection of the dentists assembled, is sufficient proof of the arduous and successful labor of the exhibit committee; I most heartily congratulate the Chairman, Dr. Duffield.

The Clinic Committee, under the efficient leadership of Dr. Brinkman, has provided a most interesting and educating clinic, as you will observe from the number and class of men secured.

The Essay Committee, under the leadership of Dr. Woolsey, has secured papers of deep interest to all practitioners of our profession, from men of national repute.

Your committee under the chairmanship of Dr. Halsey, has worked hard and faithfully to bring before us rare and difficult cases. In fact, all the committees have performed their work faithfully and well.

Your Executive Committee met at Princeton last January, and mapped out the campaign, the result of which you see and will hear about when the several committees report. One innovation was inaugurated, that of extending our session to Saturday and thus giving more time to clinics. It is a wise move. Heretofore the clinics were held during one afternoon, when it was almost impossible to see them all; now each and every one can see them all, and take home with him some useful points that he can apply to his own practice, and the benefit of his clients.

I have been asked a number of times during the year, and only last June at the Pennsylvania State Dental Society, what is the secret of the great success of our meetings in New Jersey. I replied, "Hustle and unanimity of purpose": that our officers and committees are no sooner elected and appointed, than they commence work for the next meeting.

## ITEMS OF INTEREST

each endeavoring to see who best can work and best serve the interests of our society.

### **Scientific Research.**

New Jersey is peculiarly situated, in that she has no dental nor medical college within her borders. We are thus handicapped in so far as it applies to men in our society indulging in original scientific research, as the opportunity is lacking which a college would afford. But while we have no dentists who, to my knowledge, are making original research, or are scientists (strictly speaking), ours is the one society before which such men beyond our borders delight to be heard. Why? Because we are just, practical, and analytical, and will not accept a doctrine nor a theory, unless it is proved to be true clinically.

### **Examination of School Children's Mouths.**

Dr. Sutphen, last year, brought to your attention the subject of the examination of the mouths of the children in our public schools; nothing has as yet been done. I did hope we would be one of, if not the first society to take up the subject and put it in practice, but Pennsylvania is ahead of us. They have a committee appointed, but what they have accomplished I do not know. It is, I am told, in practical working order in Europe. I hope the matter will be taken up and a committee appointed, and the work mapped out.

Since writing this paper, I have learned with much pleasure that a local society in our State has taken up the subject, namely, the Southern Dental Society of New Jersey. A committee of that society is doing missionary work among the schools. They have made application to the various County Superintendents of the Public Schools for permission to appear before the County Institutes and deliver lectures and distribute literature upon the subject of the care of the teeth of children.

I am informed that the work is well under way and that before the present year is over, at least, in three of the lower Counties of the State, there will be enough interest developed to cause the movement to spread throughout other sections of the State.

The question is, shall we, the parent society, allow one of our children to outstrip us in so important a work? I trust not. It is for you to decide.

There is no doubt the children's teeth and mouths need almost, if not as much, attention as their eyes, but the teachers and parents are either ignorant or careless, at least no attention is paid by them to the teeth of the children, but their eyes are supposed to be watched and glasses provided when necessary.

Amendments to the law regulating the practice of Dental Surgery,

## SOCIETY DISCUSSIONS

contemplated, were not enacted, for reasons of which you will be informed by the committee having the subject in charge.

**Constitution.** I have found upon inquiry for a copy of the constitution and by-laws of the N. J. S. Dental Society, that copies are so scarce that the secretary appended to the one he sent me the following: "Please be careful and not lose this; it is the only one left." Such being the case, it is time more were printed. Each member of the society should have a copy, and when a candidate is elected he should at once be presented with a copy of the constitution and by-laws of the body he has connected himself with, in order that he may know how to conduct himself at the meeting; also as the code of ethics are published therein, he will know how he is expected to bear himself toward his fellow practitioners. The laws regulating dental practice in New Jersey are also printed in the same book, which is another reason why each one should be in possession of a copy. I do not see any need of revision in the by-laws. As they now stand they have proved to be sufficient for our government for years; merely the addition of any new features in the law regulating practice, is all that need be added to the book.

I have no other things to suggest for your action at this time. The day is about past when your President can find such matter, owing to the care and work of our various committees, who are ever on the watch to improve and care for the interests not only of members of this society, but the profession at large, and also the interests of the people of this commonwealth so far as their province lies.

I take this opportunity to thank you, fellow members of the New Jersey State Dental Society, for the confidence and trust you gave me, when it pleased you to elect me to the high and honorable position of President. I also most heartily thank the members of the several committees for their support and faithful service during the year. Let us have no regrets; we are what we are on account of what we have experienced.

### **Discussion of President's Address.**

**Dr. Irwin.** Our President's address is worthy of our serious consideration. The action of this State Society is not only important to the individual members of our profession in this State, but our actions are looked upon with a good deal of interest by the various State Societies throughout the Union, and whatever steps we take may have an important influence in writing the dental history of this country.

## ITEMS OF INTEREST

**Public Schools.** The work in reference to the Public Schools to which our President has referred and which has been attempted in various parts of the United States, and which we have sought to do in the State of New Jersey, should demand our thoughtful consideration. If the dental profession wishes to be progressive and aggressive, it must get hold of the child minds of this State. If you will give me the children, I will guarantee to the dental profession of New Jersey, a grip on the public, both in regard to the excellence of its work and the interest in and desire for the physical well-being of humanity.

The work in the Southern Dental Society was inaugurated by myself some years ago, and as president of that Society, I appointed the committee which has been mentioned. Each County is represented by a leading dentist in that County. The County Superintendents have been interrogated both orally and by letter. The next step in the movement is to secure permission to get down to individual work and to examine the teeth of the children throughout the County. If you can give to this work the weight of your influence, I believe that it can be pushed forward with vigor and to a successful termination, and it will not only add to the laurels of individual members of the profession in this State, but will elevate the standing of the New Jersey State Society also.

**Programmes.** Now, in regard to extra programmes: It has been for years an exceedingly unfortunate circumstance that members attending the meetings have been unable to secure programmes, so as to learn what in particular will be of interest to them individually. The time of some of the members is often limited and they desire to devote it, perhaps, to some particular subject. The Pennsylvania Society at its June meeting had a table literally covered with extra copies of the programme, and strangers, or members of the profession who were not supplied, could walk up to that table and get as many programmes as they wanted. Let us rectify this difficulty in the future and have some extra programmes printed.

The by-laws referred to by our President, so far as my knowledge extends, are ample and do not need any alteration at present.

**Interchange of License.** I do not think our President referred to the subject of the interchange of license, but I should like to say a word about it, in the absence of Dr. Stockton. I know from actual observation and from contact with dental examiners throughout the country, that the interchange of licenses is something to be greatly desired. It is rank injustice to compel men who have been out of college, but in actual practice, for many years, to submit to an examination. Recently a gentleman of some

## SOCIETY DISCUSSIONS

eighty years of age appeared before the New Jersey Board, and I suggest to you how absurd it was to require a man of that age and who had been in active and successful practice elsewhere for many years, to submit to a theoretical examination. This gentleman was fully qualified in every way, in theory and in practice, his operative work being excellent, and yet this old man was compelled, in order to make a livelihood, to go through such an examination, while he should have been enabled to practice here by merely producing a license from the State of Ohio, where he had been practicing.

I take this opportunity to thank Dr. Chase for his excellent address, and I only wish more might have been here to hear it. It seems to me Dr. Irwin's reference to the subject of the interchange of licenses is very opportune, and I sincerely hope something may be done to further such a plan.

And I beg to offer a resolution that a committee be appointed to take up the question of the examination of the teeth of children in the public schools.

I believe it would be well to have a man appointed in each County, who might confer with the County Superintendent, and perhaps in that way some work might be done.

I would like also to offer a resolution that five hundred extra copies of the programme be provided next year.

Both of the above resolutions were seconded and unanimously adopted.

I desire personally to thank Dr. Chase for his very efficient co-operation in the work of my committee, and also for the many valuable thoughts contained in his address.

There is no doubt that the question of dental prophylactics for children is the one of utmost importance in the dental profession, not only in the State of New Jersey, but throughout the whole United States.

My own opinion is that it is only a question of time when proper prophylactics, intelligently applied, is destined to relieve the dental profession of a very great deal of trouble to which it is now subjected.

It is a subject which deserves far more than a mere passing consideration, but it is a matter in which we want to hit out square from the shoulder, and I am very glad that the State Society is to get right at it.

I have felt for a number of years that the children of our public schools should be more carefully looked after. It is well known to all of us that a large majority of the children in the public schools between the ages of

## ITEMS OF INTEREST

eight and fifteen receive no dental attention whatever, and that in future years they will suffer very much from such neglect. It is necessary for their future health and well-being that their teeth should be preserved. A majority of the parents are ignorant of the necessity of dental attention, and it should be forcibly brought to their minds; as many of them are unable to adequately remunerate a good dentist for such work, some method should be devised by which such service should be afforded to the children, whether their parents are able to pay for it or not.

I brought up the subject last year in a paper I read, and I am glad that the discussion here is adding weight to what was said at that time, and I feel sure that the result of our discussion today and of the action we have taken will be such that something will be done to remedy this very great evil. As our worthy Examiner from South Jersey says, "give us the children to look after, and we care not for the older people, they will take care of themselves." Now is the time; now is our opportunity.

I have also felt, ever since the first law was passed in this state requiring graduates of dental schools to come before Boards of Examiners for license to practice in this state, that it was not fair that those who have been practicing with skill and success in one state should be debarred from moving into another state without passing an examination. Certainly if they can practice five years successfully in one community, they are able to practice successfully in another, and inasmuch as we all of us to some extent lose our theoretical knowledge it is unjust and unfair that if we desire for reasons, be they what they may, to change from one state to another we should be compelled to go through the hardship and great labor of preparing ourselves for a theoretical examination.

Therefore, I think that the movement for the interchange of licenses is a good, and just one and should receive our hearty sympathy and support, and that we should do everything in our power to bring about, as far as possible, an interstate interchange.

Therefore, I offer the following:

*Resolved*, That this Society believes in the principle of interchange of licenses between states where the plane of examinations is equal, and we, the New Jersey State Dental Society, request the National Association of Dental Examiners to put into effect such an interchange system.

The above resolution was seconded and unanimously adopted.

The question of dental prophylactics as applied to public school children is one that has interested me very much, and I desire to offer a suggestion and can proffer myself ready to do anything I can towards helping to carry it into effect.

**Dr. Hefsey,  
Jersey City.**



## SOCIETY DISCUSSIONS

In Jersey City I have tried to do something officially along those lines. I have spoken to the Superintendent of Public Instruction as to the best means of reaching the subject.

He told me if we had a local society and it would agitate the matter he would be only too willing and glad to help it along.

In Jersey City we have no local society, and that is one reason why I am addressing you now. I am a member of the Board of Health in our city, and if this society would start the work I should be very willing to use my influence to help it along.

We are at the present time about to build a new city hospital and I am at work there on lines for the establishment of a free or practically free infirmary. I think infirmaries exist in all big cities—I believe you have one in Newark, if I am not mistaken?

**Dr. Sutphen.**

No, not now.

**Dr. Hefsey.**

Well, you did have one. Some attempts have been made along that line, and I am trying it in Jersey City.

Therefore, if you are in earnest in regard to this matter, and will send your representatives in Jersey City to me, I should be only too glad to have Jersey City as a starting point.

It is a large city and they are taking pretty good care of their teeth there, and I shall only be too glad to help the work along.

**Dr. Meeker.**

The Boards are all trying to break up the dental parlors.

The care of the teeth of children has been referred to by every President of this Society for eight or ten years past, and now it is beginning to bear fruit, because the local societies have begun to do their work. The relation between the elimination of the dental parlor and the ethical dentist will come about by the proposed action regarding the dental prophylactics of public school children, because it will be known to teachers, officers and children, that this work is being done by the dental societies, and no unethical dentist can be a member of such society, and by that means a line of demarcation will be drawn between the ethical and the unethical dentist, and as the children grow up, they will become the patients of the ethical dentists and not of the advertisers. If for that reason alone, I trust the appointees upon the committee provided for this morning will be men of vigor and earnestness who will work hard to present the matter in the right quarters so that the State society may have a chance to do the work.

**Dr. Brinkman.**

I heartily coincide with the former speakers and especially in reference to what has been said concerning children's teeth. I have had the matter in

## ITEMS OF INTEREST

mind for a long time, and I have often wondered why it has not been taken up by the different societies.

I do not see why our committee cannot get to work immediately and have the proposition brought before the various County Superintendents right away, and if they will, I have every reason to believe a great deal of good can be done.

Just one more word. I do not think the State Society is open to criticism in not taking the matter up more actively. Meeting as we do, but once a year, it is hard to get concentrated action and it is only natural that the local societies, which usually meet every month, have gotten a little ahead in the actual work.

My suggestion now is that all of the local societies be communicated with by our society, and let us see if it is not possible to get co-operation all over the State of New Jersey. With such aid, we ought to be able to accomplish great results.

There being no further discussion, the subject of the President's address was then passed.

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The resignation of Dr. Alfred DeWitt Paine was then read and accepted.

The Secretary read the resignation of Dr. G. Carlton Brown. On motion, the resignation was accepted, and Dr. Brown was elected an honorary member.

The Secretary read the following communication:

Trenton, N. J., June 20, 1905.

*Dr. Charles A. Meeker:*

Dear Doctor:—At the June meeting of the Mercer Dental Society, I was instructed to inform you that the following committee was appointed to represent the Society at the coming State meeting, viz.: Dr. A. E. Boice, Dr. A. R. Lawshe, Dr. F. K. Heazelton, Dr. J. I. Woolverton, Dr. C. H. Dilts.

Very truly yours,

F. K. HEAZELTON.

On motion, the above communication was received and ordered spread on the minutes.

On motion of Dr. Brinkman, it was

*Resolved*, That a circular letter be sent to each member next year with the programme, urging him to be present at the opening session.

On motion, the Secretary was directed to revise the By-laws and Constitution and have five hundred copies thereof printed.

On motion, adjourned until 8 o'clock p. m.



## SOCIETY DISCUSSIONS

### Evening Session.

President Chase called the meeting to order.

The Secretary called the roll.

Dr. Jacquette, of the membership committee, reported the following applications for membership:

Dr. William J. Thompson, Asbury Park, N. J. Sponsors, Drs. Taylor, W. A. Jacquette, and Halsey.

Dr. William N. Skinner, Phillipsburg, N. J. Sponsors, Drs. W. A. Jacquette, Halsey, and Tomlin.

Dr. Walter W. Curtis, Camden, N. J. Sponsors, Drs. Tomlin, W. A. Jacquette, and Halsey.

On motion, the above applications took the regular course.

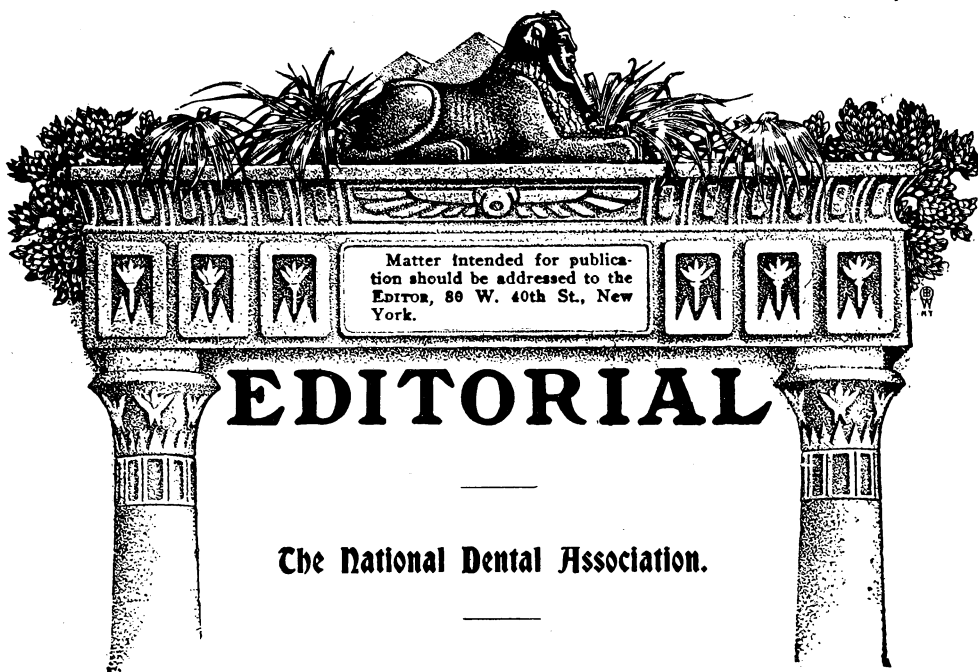
President Chase then introduced Sinclair Tousey, A.M., M.D., of New York, who read the following paper on the X-Ray and High Frequency Currents in Dentistry.

At the conclusion of the essay, Dr. Tousey gave demonstrations of—

1. The Author's Dental Fluoroscope.
2. A new Film Carrier and Indicator for Dental Radiography.
3. The application of the X-Ray and High Frequency Currents in the Treatment of pyorrhea and cancer.

On motion, adjourned until 10 a. m., Thursday, July 20.





The recent meeting of the National Dental Association, at Buffalo, proved once more the utter folly of managing a dental meeting by the section plan. The query heard on all sides in the lobbies of the hotel was "Why can't we have all papers before the general body?" The common answer was a significant shrug of the shoulders. A better reason, however, was offered by a member of the Executive Committee, who said: "We learned at St. Louis that the section plan is a failure, but we were bound to give Dr. Black's new constitution at least one year's trial." This is very commendable as a sentiment, and no one deserves consideration at the hands of the profession more than does Dr. Black. But even Dr. Black must realize by this time that dentistry is not yet sufficiently split up into specialties to make it feasible to conduct our conventions after the manner of a medical meeting.

It is quite true that arbitrary lines may be drawn dividing the science and art of dentistry into allied groups, which joined together, may make a section—on paper. But practically it does not work, mainly for the reason that the lines are largely imaginary, and the practitioners have



not as yet chosen distinct paths of labor. The vast majority of dentists are still calling themselves just dentists. To such as these a section devoted to the purely scientific does not appeal; yet the papers of such a section must have a practical bearing upon our every-day work, else the time spent in compiling the data has been in vain. It is a psychological fact, well worthy of the attention of executive committees, that an author, preparing an essay, let us say dealing with some bacteriological truth, if addressing a scientific section will so couch his language that none but bacteriologists will know what he is trying to divulge. What wonder, that a plain dentist wandering into a section meeting during the reading of such a thesis, after listening for five minutes, tip-toes out again in dread lest he disturb the devoted few who are worshipping at the shrine of pure science? Invite the same writer to prepare a paper dealing with the same facts, to be read before a local dental society, and he will so arrange his text as to be intelligible to all, and will plainly point out the practical bearing of his arguments. Such an address is helpful, and will attract, hold, and instruct an audience.

**A Remedy  
Proposed.**

Presumably no radical change in the present plan can be consummated without a delay of some two years, the red tape of the constitution tying up all progress for at least that long. It is possible, however, that the next meeting might be conducted by sections, only to an extent which will satisfy those who maintain that the constitution must ever be inviolate.

The division of the work of preparation for a great meeting into sections is perhaps not a bad plan. Let the section officers for next year proceed with the arrangement of their programme, but let it be thoroughly understood that no promise can be made that papers offered will be read. Manuscript should be in the hands of each section officer, thirty days prior to the meeting; each paper should bear a nom-de-plume only. The real name of the author should be sent in a separate envelope, containing title of paper, and nom-de-plume. These latter should be held by the section officers, and the manuscripts forwarded to a special essay and programme committee, who should read and select an equal number of papers from each section. The papers thus chosen, should be made known to the section officers and the authors should then be notified

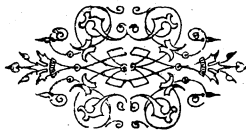
## ITEMS OF INTEREST

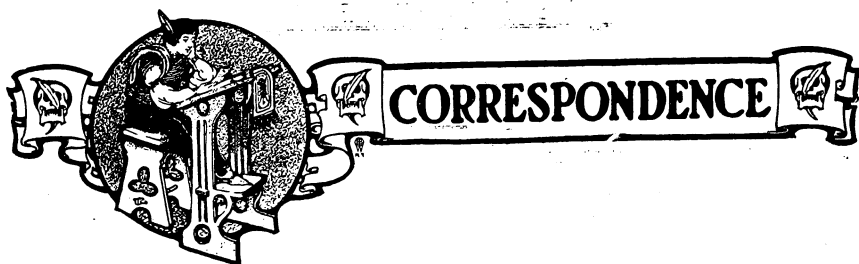
that they will have a place on the programme, and a hearing before the full body. All other papers should be returned, their rejection being a society secret. By this means we would have fewer papers—but then we would have more time for discussion.

An attempt at selection of material was made in the old American Dental Association, but the method was wrong, and therefore failed. The authors of papers were known, and rejection was counted a personal affront. The choosing of papers from unknown writers places all on an equality; favoritism is impossible, and consequently the committee could act without embarrassment. Moreover, the reading of a paper before the National Dental Association would become an honor. Authors would covet the distinction and would be the more careful in the preparation of their manuscripts.

The headline, in the magazine of publication, "Read before the National Dental Association" would be a badge of merit. At present, the words are but the statement of a fact; a fact of little interest.

So much of the time of the meeting as could be devoted to papers and debate should be exactly evenly divided between the three sections, allotted in regular rotation. Thus the cream of the year's work in all fields of dental endeavor might be harvested for our annual delectation, and the presentation so planned that all men claiming to be dentists might hear all papers claiming to advance dentistry.





## The Product of a Laboratory.

Editor ITEMS OF INTEREST:

My September copy of *ITEMS* is at hand and to me the most interesting article is the editorial entitled "Prosthodontist."

I wish first to unqualifiedly indorse your criticisms of the unsightly "false" sets of various degrees of utility made and inserted by so many practitioners, and also to indorse your denunciation of the "factory for false teeth," as you call public laboratories, but kindly remember this very important fact, dental laboratories are "factories for false teeth" because there are dental abortions who know no higher ideal than cheapness and stability.

I am not advertising my own laboratory and I will freely admit that much of my work is simply rotten when viewed from the higher viewpoint, but such work goes to the man who sends me compound impressions resembling a cow's foot in the mud; his bites are bent and hardly show the teeth imprint; he forgets to name color, and he never has heard of the center mark nor of the lip line. This poor specimen of a diplomated and licensed D. D. S. puts in all gold bridges both "fore and aft," and my work is no *better than he can comprehend*.

I have my living to make and I have competition (that life of trade), and my prices must conform to those of the institution which will make a set of teeth in six hours for \$2.75 per.

Don't slap us fellows in the face; we are the product of our environment and when the demand for us has passed by we too will fold our beds and walk.

On the other hand I have some customers who know their business and we work together as a principal and his assistant should and could always if they mutually respect each other's ability.

I do not admire or respect this "tooth factory" business, but I have so far failed to find any practitioner who could use me as I desire to be used, as a conscientious, skillful dental mechanic, with a reasonable amount of artistic ability.

Respectfully,

D. D. WHEDON,

Seattle, Wash.



## The Atmosphere of California.

*Editor* ITEMS OF INTEREST:

I inclose a circular letter from the Secretary of the Southern California Dental Association, recently received by me, and my reply to same.

In the interest of the eternal fitness of things, would you mind publishing my letter? I do not know how you stand on this question, but I hope, on the broadest, most just and most unselfish plane.

It is undoubtedly true that there are more dentists in Southern California to the square yard than in any other part of the country—too many for their own good or for the good of the public; but the latter condition is rapidly becoming true everywhere, and a man should be allowed to stand on his own merits.

Dear Doctor:—Your name has been given to us as an Ethical, Progressive and up-to-date Dentist, and we cordially invite you to meet with us Nov. 6, 7, 8, 1905, during our eighth annual session.

The meeting will be held at the New College of Dentistry, corner of Fifth and Wall streets. The Trustees have kindly tendered the use of the entire building to the Association for this session. The new college, when finished October 1, will be the most complete in all details of any on the Coast, so that the facilities in the way of giving Clinics of all kinds cannot be excelled. The clinic and programme committee are preparing Clinics and papers on all the leading and interesting subjects of the day. If you want to be a part of one of the greatest forces for good, come and join us. We need you, and you need us. Together we can accomplish much for the elevation of the profession and for the benefit of the public.

The Southern California Dental Association has a membership of 200. We give you the good-fellowship, and the experience of all these men, for one dollar per year for dues. Can you afford to miss it? We are going to have a rousing meeting and a jolly good time. Come and join with us.

Fraternally,  
Clinic Committee.

J. A. YOUNG, San Diego.

W. L. WARNEKROS, Santa Barbara.

R. H. SHOEMAKER, Pasadena.

WALTER GRAY, Los Angeles.

J. F. COOK, Los Angeles.

W. H. SPINKS, Los Angeles,

Chairman, 230½ S. Spring street.





## CORRESPONDENCE

DR. CHAS. M. PENBROOK, *Secretary,*

Los Angeles, Cal.

Dear Doctor:—Your circular letter, asking me to attend the meeting, in November next, of the S. C. D. A., was forwarded from Norwalk to this place.

Thanks for the invitation, but distance, which, as a rule, “lends enchantment to the view,” in this particular instance precludes the possibility of my accepting.

After wishing for twenty years or more to do so, I finally, a little more than two years ago, succeeded in getting to Southern California, only to find that my professional brethren had recently compassed the passage of a law, keeping unfortunates from other States (“damned Easterners,” as I heard them called by a physician) out of California. They had built the fence so high and guarded the entrance so closely that it was as hard—unless he knew just what strings to pull and did not mind pulling them—for one of the aforesaid damned Easterners to get in as it would have been for Adam and Eve to pass the angelic guardians of Eden’s portals. Not that the guardians of the portals of dentistry in Southern California are angelic, God save the mark.

Twice I tried to pass the Board, paying \$25.00 each time for the privilege of being turned down, as did the majority of my fellow-aspirants. They shut the door in our faces with a bang that, evidently, they wanted heard from Maine to Florida.

However, feeling that the law was un-American, and, as a good lawyer told me, unconstitutional, and that everything connected with it was not done on the square, I determined to practice anyway, and did so for nearly two years in the village of Norwalk. As the practice was not sufficiently large, though, and as it is unpleasant for one to have the sword of Damocles hanging over his head, I came away in April last, very reluctantly turning my back upon that sunny, and, in many respects, pleasant, land. It seems so sad that the most attractive portion of Uncle Sam’s domain should, because of that very fact, develop some of the meanest and most selfish traits of human nature. The physical climate of Southern California I found almost as ideal as I expected, but the professional atmosphere is frigid enough to chill the warm red blood in the heart of the most enthusiastic.

In coming away I wish I could have believed I was leaving no dentist behind in California who did as little discredit to the profession as myself, or who tried as honestly to give his patients value received for their money.

Where the present conditions along this line existing in California, and most if not all the other States, for that matter, will end, *quien sabe?*

## ITEMS OF INTEREST

They certainly were not contemplated by the signers of the Declaration of Independence, and their compatriots, the men who fought and died to make this a free country for themselves and their descendants, so long as they behaved themselves. My forbear at that time risked his life on more than one battlefield, but I am not allowed to go anywhere in my native land and work for a living—even though I behave myself and give satisfaction to my patrons—because I happen to be in some other fellow's way!

I do not say these things from the I-am-holier-or-more-unselfish-than-thou standpoint—there is, I fear, as much of the hog in my composition as in my brother's—but we should enact and enforce just laws to save us from ourselves. The day should be hastened when not only in our profession but in all vocations, a diploma of sheepskin or of character should be good wherever the stars and stripes float.

Thanking you again,

Yours truly,  
R. B. HILL,  
Rockport, Texas.





Arkansas reports no interchange as yet, but Oklahoma reports interchange with Arkansas.

District of Columbia interchanges with New Jersey.

Florida interchanges with States whose laws are equal to Florida's.

Indiana interchanges with New Jersey.

Michigan interchanges with New Jersey and the Canadian Northwest Territories.

New Jersey interchanges with Indiana, Michigan, Tennessee, Utah and Vermont, and by special agreement with New York.

New York interchanges with New Jersey and Pennsylvania.

Oklahoma reports interchange with Arkansas.

Pennsylvania interchanges with New York.

Tennessee interchanges with New Jersey.

Utah interchanges with New Jersey.

Vermont interchanges with New Jersey.

### **Requirements for Licenses and Dates of Examinations.**

Secretaries of State Boards are requested to keep us constantly posted in regard to dates and places of examinations or changes in their laws that this department may be kept up to date.

**Alabama.** Examination required, with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations annually on the

## ITEMS OF INTEREST

first Monday before the second Tuesday of each year. Secretary, Dr. Thomas P. Whitby, Selma, Ala.

**Arizona.** Examination fee \$25. Secretary, Dr. Wm. G. Lentz, Fleming Rock, Phoenix, Ariz.

**Arkansas.** Examination with or without diploma; applicants must attain an average of 75 per cent to pass.

Examination fee \$5. No special examination granted to practitioners already in practice; no temporary licenses. Oklahoma reports interchange with Arkansas, but the secretary of Arkansas reports no interchange as yet. Secretary, A. T. McMillan, 5th and Main streets, Little Rock, Ark.

**California.** Examination required with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, C. A. Herrick, Jackson, Amador Co., Cal.

**Colorado.** Examination granted to holders of diploma only. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations first Tuesdays of June and December, at Denver. Secretary, Dr. M. S. Fraser, 407 Mack Building, Denver, Colo.

**Connecticut.** Applicant for examination must have diploma, or must have had five years' instruction from a licensed dentist, or three years' practice as a legally qualified dentist. Examination fee, \$25. Examination, Nov. 8, 9, 10. A special clause permits reciprocal interchange of licenses in accordance with the Asheville resolution. Recorder, G. M. Gilbert, 783 Main street, Hartford, Conn.

**Delaware.** Examination and diploma required in all cases. Examination fee \$10; \$1 for certificate. All applicants for certificates come under the same conditions. No interchange of license with any other States. Examinations first Wednesdays in January, April, July and October. Place of meeting given when applicant writes for the information. Secretary, C. R. Jeffers, New Century Bldg., Wilmington, Del.

**District of Columbia.** Examination with or without diploma. Examination fee \$10. Reciprocal interchange of license with the State of New Jersey in accordance with the provisions of the Asheville resolution. Examinations semi-annually. Secretary, Dr. S. G. Davis, 607 13th street, Washington, D. C.

## ITEMS OF INTEREST

**Florida.** Examination required with diploma. Examination fee \$10. No special examination for practitioners already in practice. Interchange of license with States whose laws are equal to Florida. Secretary, W. G. Mason, Tampa, Fla.

**Idaho.** Examination required with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any State. Examination, Nov. 27-29. Secretary, C. E. M. Loux, Pocatello, Idaho.

**Illinois.** Examination required with or without a diploma. Examination fee \$20. License fee \$5. No special examination required for practitioners already in practice. No interchange of license with any other State. Examinations twice each year, usually in May and October. Secretary, Dr. J. G. Reid, 67 Wabash avenue, Chicago, Ill.

**Indiana.** Applicants for examination must possess diploma from recognized college or must have had five years' dental practice under a reputable practitioner of this State. Examination fee \$20. No special examination granted to practitioners already in practice. Reciprocal interchange of license with the State of New Jersey in accordance with the provisions of the Asheville resolution. Secretary, Dr. F. R. Henshaw, Middletown, Ind.

**Iowa.** Examination required with diploma. Examination fee \$20. No special examination granted to practitioners already in practice. No interchange of license with any State. Secretary, Dr. E. D. Brower, Le Mars, Ia.

**Kansas.** No examination required if applicant has a diploma from a reputable college; otherwise examination required. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, Dr. M. I. Hults, Hutchinson, Kan.

**Kentucky.** Examination required with diploma. Examination fee \$20. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations first Tuesday in June and December in Louisville. Secretary, Dr. C. R. Shacklette, 628 Fourth avenue, Louisville, Ky.

## ITEMS OF INTEREST

**Louisiana.** Examination required with diploma. Examination fee \$25, payable in advance. No special examination granted to practitioners already in practice. No interchange of license with any States—Board has the matter under consideration. Examinations twice annually in New Orleans, first examination on the day following the commencement exercises of the New Orleans College of Dentistry. Second examination occurs on the first Tuesday after the third Monday in October, this year, Oct. 17. Secretary, treasurer and attorney, L. A. Hubert, 137 Carondelet street, New Orleans, La.

**Maine.** Examination required with or without diploma. Examination fee \$20. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, Dr. Dana W. Fellows, Portland, Me.

**Maryland.** Examination required with diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any State. Examinations occur twice annually in Baltimore. In 1905 Nov. 6-7. Secretary, F. F. Drew, 701 N. Howard street, Baltimore, Md.

**Massachusetts.** Examination required with or without diploma. Examination fee \$20 for first examination, subsequent examinations \$5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination October 25, 26, 27. Secretary, Dr. G. E. Mitchell, Haverhill, Mass.

**Michigan.** Examination required with or without diploma. Examination fee \$10. Practitioners already in practice may have a special examination before any member of the Board which will enable him to practice until the next regular meeting of the Board, when a regular examination must be taken. Examination Oct. 31. Reciprocal interchange of license with New Jersey in accordance with the provisions of the Asheville resolution, and with the Canadian Northwest Territories. Secretary, Dr. C. H. Oakman, 29 State street, Detroit, Mich.

**Minnesota.** Diploma must be presented from a dental college in good standing or satisfactory evidence must be given of having been engaged in the practice of dentistry as early as April, 1879. Examination fee \$10. No special examination granted to practitioners already in practice, and the Board has no power to grant temporary license of any kind. No interchange of

## ITEMS OF INTEREST

license with any States. Examinations first Tuesday in April and October. Held at Dental Department of the State University at Minneapolis. Secretary, C. H. Robinson, Wabash, Minn.

**Mississippi.** Examination required with or without diploma. Examination fee \$10. Practitioners already in practice will be granted an examination by any member of the Board, who is authorized to issue a temporary license which will be valid until the next succeeding meeting of the Board. Only one temporary license shall ever be issued to the same applicant. Secretary, Dr. P. P. Walker, Brandon, Miss.

**Missouri.** Examination with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations second Tuesday in May and October at the Senate Chamber at Jefferson City. Secretary, S. C. A. Rubey, Clinton, Mo.

**Montana.** Examination with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, D. J. Wait, Helena, Mont.

**Nebraska.** Registers diploma from recognized colleges without examination, all others required to take examination. Examination fee \$10; fee for registering diploma \$1.00. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination—no special date, but are set when application is made. Secretary, Dr. D. A. Meese, Auburn, Nebr.

**Nevada.** Examination required of all graduates. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, C. A. Coffin, Reno, Nevada.

**New Hampshire.** Examination required with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice except by agreement of the full Board. No interchange of license with any States. Secretary, A. J. Sawyer, Manchester, N. H.

**New Jersey.** Applicant must be a graduate of a reputable dental college and hold a high school diploma or a certificate from the State superintendent of public instruction, Professor Baxter, Trenton, N. J. Examination fee, \$25. Reciprocal interchange of license with Utah, Tennessee, Indiana, Michigan and Vermont, in accordance with the provisions of the

## ITEMS OF INTEREST

Asheville resolution, and by special agreement with New York. Examinations December 12, 13, 14. Theoretical branches in the Assembly Chamber, Trenton, N. J. Practical operative work at the office of C. S. Stockton, 7 Central avenue, Newark, on a date assigned by him. Practical prosthetic work at the office of Dr. A. Irwin, 425 Cooper street, Camden, N. J., on a date assigned by him. Secretary, Dr. Charles A. Meeker, 29 Fulton street, Newark, N. J.

Examination required with or without diploma.

**New Mexico.** Examination fee \$25. Fee for certificate \$5. All licensed dentists within the Territory shall, on or before the first day of June of each year register with the secretary of the board, and shall pay therefor an annual fee of \$3. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, C. N. Lord, Santa Fe, N. M.

Diploma from a registered school is necessary for admission to the dental licensing examination. **New York.** Applicants who have had six years' practice in dentistry may on unanimous recommendation of the Board receive a license to practice in this State provided they meet the necessary professional and preliminary requirements. Examination fee \$25. Reciprocal interchange of license with New Jersey and Pennsylvania. Chief, Charles F. Wheelock. Examinations Division, New York State Education Department, Albany, N. Y.

Examination with or without diploma. **North Carolina.** Examination fee \$10. No special examination granted to practitioners already in practice. Secretary, R. H. Jones, Winston-Salem, N. C.

Examination required with or without diploma. **North Dakota.** Examination fee \$10; additional fee for license, \$5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, second Tuesday in July. Secretary, H. L. Starling, Fargo, N. D.

The Board will register without examination **Ohio.** all graduates of the Ohio colleges who make proper application and pay the required fee of \$10 prior to the June, 1905, session of the Board; all other applications must be graduates and pass examination before they can practice legally in Ohio. Examination fee \$20; registration fee \$10. There is an exemption clause which permits the Board to register a person who has been in practice in the State of Ohio continuously since January 1, 1903; this must be verified by evidence. Examinations for 1905 will be held November 28, 29, 30, in Columbus. Application should be filed with the secretary 10



## ITEMS OF INTEREST

days prior to examination. Secretary, H. C. Brown, 185 East State street, Columbus, Ohio.

**Oklahoma.** Examination required if without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. Reciprocal interchange of license with Arkansas. Secretary, A. C. Hixon, Guthrie, Okla.

**Oregon.** Examination required with diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination in November in Portland. Secretary, O. D. Ireland, 614 Dekum Building, Portland, Ore.

**Pennsylvania.** Examination required with diploma. Examination fee \$15. No special examination granted to practitioners already in practice. Reciprocal interchange of license with New York. Secretary, C. N. Schaeffer, Harrisburg, Pa.

**Rhode Island.** Examination in all cases. Examination fee \$20. No special examination granted to practitioners already in practice. In regard to interchange the Board has recommended an amendment to the law giving the board discretion. Secretary, W. S. Kenyon, 301 Westminster street, Providence, R. I.

**South Carolina.** Examination with diploma. Examination fee \$15. No special examination granted to practitioners already in practice. No interchange of license with any States, but is not opposed to a satisfactory plan of exchange. Secretary, Dr. B. Rutledge, Florence, S. C.

**South Dakota.** Applicants for examination must have diploma or must have had three years' practice immediately preceding examination. Examination fee \$10; license fee \$5. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, G. W. Collins, Vermillion, S. D.

**Tennessee.** Registers diploma without examination and examines all others. Examination fee \$5. No special examination granted to practitioners already in practice. Reciprocal interchange of license with New Jersey, in accordance with the provision of the Asheville resolution. Secretary, F. A. Shotwell, Rogersville, Tenn.

## ITEMS OF INTEREST

**Texas.** Registers diplomas and examines all others. Examination fee \$10. Temporary licenses granted to holders of diplomas between meetings of the Board; good until the following meeting. Temporary licenses granted to others after an examination by any member of the Board. Good until the next meeting of the Board. Fee for temporary license \$2. Secretary, C. C. Weaver, Hillsboro, Texas.

**Utah.** Examination required with or without diploma. Examination fee \$25. No special examinations granted to practitioners already in practice. Reciprocal interchange of license with New Jersey in accordance with the provisions of the Asheville resolution. Examination not yet fixed. Usually April and October. Secretary, H. W. Davis, 511-513 McCormick Block, Salt Lake City, Utah.

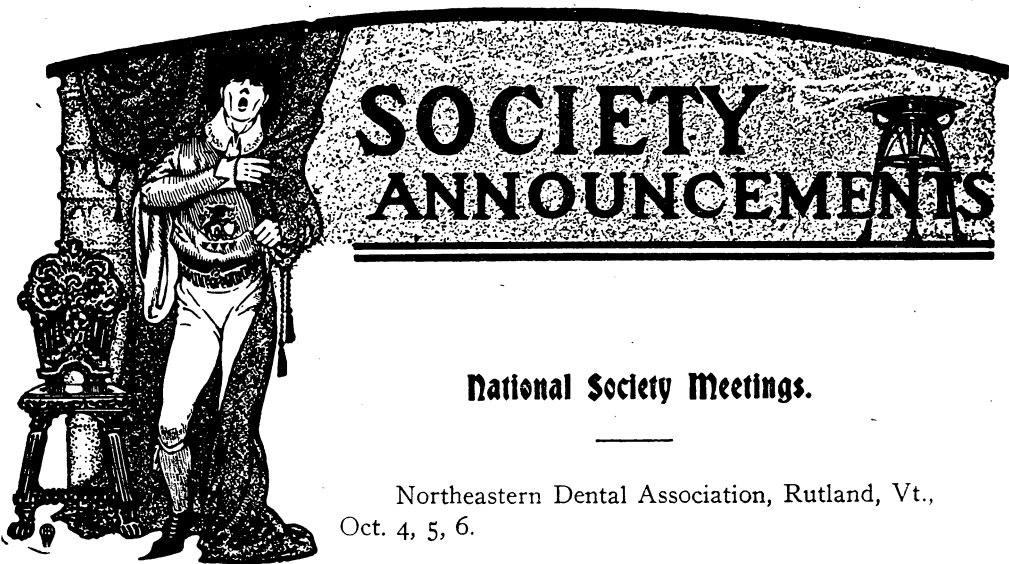
**Vermont.** Examination required in all cases. Examination fee \$25. No special examination granted to practitioners already in practice. Board is empowered to make interchange of license, in accordance with the Asheville resolution. Interchanges with New Jersey. Secretary, G. F. Cheney, St. Johnsbury, Vt.

**Virginia.** Examinations required with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, R. H. Walker, Norfolk, Va.

**Washington.** Examination required with diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations in May and November. In 1905 on November 20. Secretary, C. S. Irwin, Vancouver, Wash.

**West Virginia.** Examination required with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any State. Secretary, H. M. Van Voorhis, Morgantown, W. Va.

**Wisconsin.** Examination required with diploma. Examination fee \$10. Dentists who have practised for four years or have been apprenticed to a reputable dentist for five years are entitled to examinations. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, J. J. Wright, 1218 Welles Building, Milwaukee, Wis.



# SOCIETY ANNOUNCEMENTS

## National Society Meetings.

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Northeastern Dental Association, Rutland, Vt.,  
Oct. 4, 5, 6.

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## State Society Meetings.

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Delaware State Dental Society, October 4.

Illinois State Dental Society, Springfield, May 8-11, 1906.

Montana State Dental Society, February 23, 24, 1906.

Southern California Dental Association, Los Angeles, November 6, 7, 8,  
1905.

Vermont State Dental Society, Brattleboro, May 15, 1906.

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## Northeastern Dental Association.

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The eleventh annual meeting of the Northeastern Dental Association will be held in Rutland, Vt., October 4, 5 and 6. Everything is being done to make a successful meeting. The co-operation of all ethical members of the profession is desired.

EDGAR O. KINSMAN, D.M.D., Secretary.

Cambridge, Mass.



## **The Jenkins Society.**

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On September 1 "The Jenkins Society" was formed, with the following charter members: Drs. W. I. Brigham, South Framingham, Mass., President; R. S. Miller, Philadelphia, Pa., Vice-President; H. H. Gorton, Naugatuck, Conn.; F. F. Cloud, New York, N. Y.; J. Z. Ray, Haverhill, Mass.; J. W. Shaw, Springfield, Mass.; E. P. White, Cambridge, Mass.; G. L. Sturgis, New Haven, Conn.; P. J. Macdonald, Springfield, Mass.; F. S. Baston, Norwood, Mass.; E. H. Goldberg, Bennettsville, S. C.; C. A. Neal, New Bedford, Mass.; L. H. Chivers, Newburyport, Mass.; C. W. Gates, Waterbury, Conn.; J. R. Powell, Jr., Brooklyn, N. Y.; J. H. Tuttle, Brooklyn, N. Y.; W. R. Wengorovius, Brooklyn, N. Y.; J. B. Brown, Brooklyn, N. Y.; C. S. Hurlbut, Springfield, Mass.; C. F. Gibbs, Bridgeport, Conn.; W. F. Shaw, Westfield, Mass.; D. C. Shaw, Springfield, Mass.; H. J. Pillion, Hartford, Conn.; A. F. Wyman, New Bedford, Mass.

The objects of this society are to disseminate new information in regard to the use of porcelain in dentistry and to encourage the proper use of porcelain, by clinics and demonstrations. The society is to be international in character, and any dentist in good standing, interested in porcelain work, is eligible to membership.

The annual dues are \$1.00. The dues are to defray the expenses of publication and distribution of new literature on porcelain. All applications for membership should be sent to the undersigned,

B. C. GUILLE, D.D.S., Secretary and Treasurer,  
Penn Yan, N. Y.

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## **Dental Commissioners of Connecticut.**

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The Dental Commissioners of the State of Connecticut hereby give notice that they will meet at Hartford on Wednesday, Thursday and Friday, November 8, 9 and 10, 1905, to examine applicants for license to practice dentistry and for the transaction of any other business proper to come before said meeting. Practical examinations in operative and prosthetic dentistry will be held Wednesday, November 8. The written theoretical examination will be held Thursday and Friday, November 9 and 10. Application blanks must be filled in and sworn to and with fee filed with the Recorder on or before November 1, 1905.

By direction of Dental Commissioners,

GILBERT M. GRISWOLD, Recorder,

Hartford, Conn.



## **First Annual Clinic of the Fraternal Dental Society of St. Louis.**

November 20-21, at The Barnes Dental College.

Special papers by Dr. E. K. Wedelstaedt, of St. Paul; clinics by Drs. A. C. Searl, J. F. Wallace, Wm. Finn, C. N. Booth, J. J. Booth, Ed. S. Brown, W. T. Rutledge and others, bearing on the Black and Wedelstaedt methods and principles of cavity preparation and filling. Drs. F. E. Roach, Geo. T. Banzett, of Chicago; W. Leon Ellerbeck, of Salt Lake City, and others will demonstrate the various phases of porcelain work. The time-proven advantages and disadvantages of high and low fusing bodies will be shown. Others will operate, showing methods in dental prosthesis and orthodontia.

A full line of exhibits in a beautiful exhibit room. Hotel headquarters at the Jefferson Hotel. All are invited to attend and participate. Inquiries should be addressed to D. O. M. LeCron, superintendent of clinics, 501 Missouri Trust Building, or to the secretary.

S. H. VOYLES, Secretary,  
3201 Washington Avenue.

BURTON LEE THORPE, President.

## **Minnesota State Board of Dental Examiners.**

The next meeting of the Minnesota State Board of Dental Examiners will be held at Minneapolis, October 3, 4 and 5, at the Dental Department, State University. All applications must be in by 12 o'clock noon, October 3. Application blanks will be furnished upon request by

DR. F. S. JAMES, Secretary,  
Winona, Minn.

## **Third and Fourth District Dental Societies.**

A joint meeting of the Third and Fourth District Dental Societies will be held at Schenectady, N. Y., October 17 and 18, 1905. An excellent programme of clinics and essays is being prepared by the Executive Committee. All ethical members of the profession are invited to meet with us.

CHAS. E. ALLEN, Secretary Third District.  
F. T. GRENNAN, Secretary Fourth District.  
W. S. ROSE, Chairman Executive Committee.



## **State Board of Registration and Examination in Dentistry. State of New Jersey.**

The New Jersey State Board of Registration and Examination in Dentistry will hold their semi-annual meeting in the theoretical branches in the Assembly Chamber of the State House, at Trenton, N. J., on December 12, 13 and 14, 1905. Sessions begin promptly at 9 a. m. each day. Practical operative work done in the office of Dr. C. S. Stockton, 22 Central avenue, Newark, N. J., by appointment of the examiner. Practical prosthetic work at the office of Dr. A. Irwin, 425 Cooper street, Camden, N. J., on a date assigned by the examiner. Application must be in the hands of the secretary two weeks prior to the examination.

CHARLES A. MEEKER, D.D.S., Secretary,  
29 Fulton street, Newark, N. J.

## **Maryland State Board of Dental Examiners.**

The Maryland State Board of Dental Examiners will meet for the examination of candidates on November 6 and 7, 1905, at the Baltimore College of Dental Surgery, Baltimore, at 9 a. m. For application blanks and all information apply to DR. F. F. DREW, Secretary.  
701 N. Howard Street, Baltimore, Md.

## **Seventh and Eighth District Dental Societies of the State of New York.**

Union meeting of the Seventh and Eighth District Dental Societies of the State of New York, held at the Osburn House, Rochester, N. Y., October 31, November 1-2, 1905. Mark these dates off in your appointment book and attend. It will be time well spent. If you have anything of interest, communicate with the Business Committee: C. F. Bunbury, Chairman, 62 State street, Rochester, N. Y.; J. W. Graves, 32 Triangle Building, Rochester, N. Y.; S. Eschelman, 421 Franklin street, Buffalo, N. Y.; D. H. Young, Attica, N. Y.

## **Southern California Dental Association.**

The Southern California Dental Association will hold its eighth annual session in Los Angeles, November 6, 7 and 8.

CHAS. M. BENBROOK, Secretary.  
Los Angeles, Cal.



## **National Association of Dental Faculties.**

The twenty-second annual meeting of the National Association of Dental Faculties, held at Buffalo, N. Y., July 27, 28, 1905, resulted in the election of the following officers and committees: President, J. H. Kennerly, 2645 Locust street, St. Louis, Mo.; Vice-President, J. I. Hart, New York; Secretary, George Edwin Hunt, 131 E. Ohio street, Indianapolis; Treasurer, H. R. Jewett, Atlanta, Ga. Executive Committee—D. J. McMillan, Kansas City; L. P. Bethel, Columbus, O.; J. B. Wilmot, Toronto; R. M. Sanger, East Orange, N. J.; H. B. Tileston, Louisville. Ad Interim Committee—S. H. Guilford, Philadelphia; M. C. Marshall, St. Louis; J. P. Gray, Nashville. Foreign Relations Committee—G. V. Black, Chicago; W. F. Litch, Philadelphia; D. R. Stubblefield, Nashville; William Carr, New York; J. D. Patterson, Kansas City.

Forty-three of the fifty colleges holding membership were represented by delegates and most harmonious meetings were held. United States Consul J. H. Worman, Munich, Germany, was present at one session and told what was being done to rehabilitate the American degree in that country. Announcement was also made that the United States Government had recognized the National Association of Dental Faculties in its act regulating the practice of dentistry in the Philippine Islands.

GEORGE E. HUNT, Secretary.

## **Massachusetts Board of Registration in Dentistry.**

A meeting of the Massachusetts Board of Registration in Dentistry, for the examination of candidates, will be held in Boston, Mass., October 25, 26 and 27, 1905.

All applications, together with the fee of \$20, if first examination, must be filed with the secretary of the Board on or before October 18, as no application for this meeting will be received after that date.

Hereafter candidates for second and subsequent examinations will be required to fill out an application blank and forward it to the secretary as above.

Every candidate for examination must be twenty-one years of age. Application blanks may be obtained from the secretary. Temporary licenses are never granted. The fee for third and subsequent examinations is \$5.

G. E. MITCHELL, D.D.S., Secretary.

25 Merrimac street, Haverhill, Mass.



## **New Jersey State Dental Society.**

The following officers have been elected for the ensuing year at the meeting of the New Jersey State Dental Society, held July 19-21, at Washington, D. C.: J. E. Duffield, D.D.S., President, Fifth and Benson streets, Camden, N. J.; M. R. Brinkman, D.D.S., Vice-President, Hackensack, N. J.; Charles A. Meeker, D.D.S., Secretary, 29 Fulton street, Newark, N. J.; Herbert S. Sutphen, D.D.S., Assistant Secretary, 24 Kinney street, East, Newark, N. J.; Dr. Henry A. Hull, Treasurer, New Brunswick, N. J. Committees—Executive Committee—M. R. Brinkman, D.D.S., Chairman, Hackensack, N. J.; Walter Woolsey, D.D.S., Elizabeth, N. J.; W. A. Jaquette, D.D.S., Salem, N. J.; J. G. Halsey, D.D.S., Swedesboro, N. J.; Harvey Iredell, D.D.S., New Brunswick, N. J. Membership Committee—C. H. Dilts, D.D.S., Chairman, Trenton, N. J.; Byron L. Rhome, D.D.S., Asbury Park, N. J.; W. H. Gelston, D.D.S., Camden, N. J.; Franklin Rightmire, D.D.S., Paterson, N. J.; W. F. Naylor, D.D.S., Somerville, N. J. Essay Committee—Walter Woolsey, Chairman, Elizabeth, N. J. Clinic Committee—M. R. Brinkman, Chairman, Hackensack, N. J. Exhibit Committee—M. R. Brinkman, D.D.S., Chairman, Hackensack, N. J. Art and Invention Committee—T. N. Bradfield, Chairman, Newark. Prosthetic Dentistry Committee—A. Irwin, Chairman, Camden, N. J. Materia Medica Committee—Wm. H. Gelston, D.D.S., Chairman, Camden, N. J. Dental Literature Committee—B. L. Rhome, Chairman, Asbury Park. Contracts, Accommodations and Programmes—Charles A. Meeker, Chairman, Newark, N. J. Clinical Conference—J. G. Halsey, Chairman, Swedesboro. Entertainment Committee—J. L. Crater, Chairman, Orange, N. J. Press Committee—C. S. Stockton, Chairman, Newark. Legislative Committee—F. Edsall Riley, Chairman, Newark, N. J. Committee on Abolishment of Jury Duty—Nelson M. Chitterling, Chairman, Bloomfield, N. J. Committee on Registration—Harvey Iredell, Chairman, New Brunswick, N. J. Smoker Committee—H. S. Sutphen, Chairman, Newark, N. J. Committee on Ethics—J. E. Duffield, Chairman, Camden, N. J.

## **Michigan State Board of Examiners in Dentistry.**

The Michigan State Board of Examiners in Dentistry will meet at the Dental Department, Ann Arbor, at 9 a. m., October 31, for the purpose of examining candidates for the Michigan license.

CHAS. H. OAKMAN, Secretary,  
CHAS. J. GRAY, President, Petoskey. 29 State Street, Detroit.